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Finding of no significant impact on the environmental assessment for STPU 5807(7) north Main street-

FINDING OF NO SIGNIFICANT IMPACT

on the

ENVIRONMENTAL ASSESSMENT

for

STPU 5807(7)
North Main Street - Helena
Lewis & Clark County
P.M.S. Control #2319

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and

Section 2-3-104, 75-1-201, M.C.A.,

and

49 U.S.C. 303 (for 4(f)'s only)

by the

U.S. Department of Transportation
Federal Highway Administration
Region 8

and the

State of Montana
Department of Transportation
Highways Division - Engineering

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FINDING OF NO SIGNIFICANT IMPACT

FOR

STPU 5807(7)
North Main Street - Helena
Control No. 2319

THE FEDERAL HIGHWAY ADMINISTRATION HAS DETERMINED THAT THIS PROPOSED PROJECT WILL HAVE NO SIGNIFICANT IMPACT ON THE HUMAN ENVIRONMENT. THIS *FINDING OF NO SIGNIFICANT IMPACT* IS BASED ON THE ATTACHED ENVIRONMENTAL ASSESSMENT WHICH HAS BEEN INDEPENDENTLY EVALUATED BY THE FEDERAL HIGHWAY ADMINISTRATION AND DETERMINED TO ADEQUATELY AND ACCURATELY DISCUSS THE NEED, ENVIRONMENTAL ISSUES, AND IMPACTS OF THE PROPOSED PROJECT AND APPROPRIATE MITIGATION MEASURES. IT PROVIDES SUFFICIENT EVIDENCE AND ANALYSIS FOR DETERMINING THAT AN ENVIRONMENTAL IMPACT STATEMENT IS NOT REQUIRED. THE FHWA TAKES FULL RESPONSIBILITY FOR THE ACCURACY, SCOPE, AND CONTENT OF THE ATTACHED ENVIRONMENTAL ASSESSMENT.

Federal Highway Administration

Date 6-18-97

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1.0 Coordination Process

The proposed action has been coordinated with all the appropriate federal, state and local agencies in order to comply with the National Environmental Policy Act and the Montana Environmental Policy Act. The notice of availability of the Environmental Assessment was published in the Helena Independent Record on September 25, 1996. It was also sent to the project mailing list of interested people. Copies of the Environmental Assessment were sent to all committee members and review agencies.

A Public Hearing was held on Thursday, October 10, 1996, at the Montana Power Company Service Building, 1315 North Main Street. There were 32 individuals who signed the attendance sheet for the Hearing. A transcript of the Hearing is included in Appendix B. Seven (7) public comment letters were received and are in Appendix D.

The majority of comments received at the Hearing related to the need for the project and discussion of specific design elements. Appendix D includes comment sheets, public letters, and agency letters received about the project, after publication of the North Main Street-Helena Environmental Assessment.

1.1 Response to Comments and Questions on the Environmental Assessment

Responses to comments received on the Environmental Assessment are provided here:

1.1.1 Comments Regarding Bicycles and Pedestrians

1. Comment: I am in support of the project....there are several aspects of the currently proposed bicycle/pedestrian underpass immediately south of the Montana Rail Link (MRL) railroad spur line that need additional consideration:

    - Pedestrians and bicyclists traveling east-west along Lyndale Avenue will still have difficulty safely crossing North Main Street, because the proposed underpass is too far to the north for them to use conveniently. I understand Memorial Drive is being considered as a possible future bicycle/pedestrian route, which will require improved access to the west side of North Main Street.

    - Pedestrians and bicyclists traveling between Memorial Park and the YMCA facilities may have difficulty safely crossing North Main Street, because the proposed underpass may be too far to the north for them to use conveniently.

As remedies to the above concerns, I offer the following solutions:

- Add an additional bicycle/pedestrian underpass (or overpass) closer to Lyndale Avenue, such as across from Memorial Drive.
- Shift the location of the current proposed bicycle/pedestrian underpass (or overpass) south toward the center of Memorial Park.

Response: Memorial Drive was identified in the Helena Transportation Plan for bicycle/pedestrian facilities but a project has not been developed. A thorough evaluation of the bicycle/pedestrian crossing between Bausch and Memorial Parks was conducted for the Environmental Assessment. Several design concepts were considered and included an at-grade crossing, an at-grade crossing with signal, an underpass at the MRL spurline, an overpass between the two parks and an underpass/at-grade combination. These concepts were evaluated for several criteria including safety, operations, impacts to the parks and cost. An overpass or underpass located directly between the parks was not advanced because of substantial land and park space required for the ramps , visual impacts and cost. The at-grade crossing combined with an underpass at the MRL spurline best addressed the need for safe crossing without the substantial impacts to the parks

2. Comment: We suggest continuous striping and pavement markings with bicycle symbols. Also, the design should not hinder all-season maintenance of that space.

   Response: It is recommended that a stripe be provided between the bicycle lane and the traffic lane. An appropriate symbol to designate the lane will be selected to provide adequate recognition of the lane. On-street bike lanes will receive the same maintenance as the rest of the roadway.

3. Comment: We feel a four-foot wide median is not enough at crosswalks, since a likely use will be for cyclists walking their bikes across North Main....We feel a minimum of 6 feet is required. If the additional space were obtained by narrowing the traffic lanes, perhaps a traffic calming benefit would also result.

   Response: Reducing the width of the lanes below 3.6 meters (11.8 feet) is not recommended since the facility serves a large number of trucks. If the lanes are less than 3.6 meters (11.8 feet) trucks will have difficulty with turning movements, and it is likely that the adjacent bike lanes will be encroached upon. Intersection Level-of-Service is also reduced with narrower lanes.

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4. Comment: We feel that at least the crosswalks themselves need to be visually accentuated, to warn drivers to watch for walkers/cyclists and to reassure walkers/cyclists that they aren't trespassing. We recommend some combination of color and pattern for the concrete or paving within the crosswalks.

   Response: Standard MDT crosswalk pavement marking details will be used for the pedestrian crosswalks throughout the project. The pavement marking provides for visual identification. A combination of materials is not proposed due to added cost, maintenance and the potential for wear from snowplows.

5. Comment: We do not understand why the intersection at National lacks a crosswalk on the east side.

   Response: To lessen the pedestrian exposure across North Main, it is recommended to have the pedestrian crossing only on the west side of the intersection. The crosswalk is located on one side to provide the best driver expectation of the presence of the crosswalk. The proposed location is also its current location.

6. Comment: We recommend consulting an expert in bicycle facilities design to determine the appropriate curb height for the sidewalks on the bridges.

   Response: A 150 mm (6-inch) curb height is proposed for the bridges. This is the height curb used along the rest of the project. The height was reviewed with several people active in the development of bicycle facilities. The walkway is separated from the traffic by the bike lane.

7. Comment: I question the wisdom of forcing our children to ride bikes in traffic, when a wider, separate (boulevard) strip is available next to the sidewalk.

   Response. The purpose of the bicycle lane is to provide a facility for experienced bicyclists who choose to utilize through roadways. The sidewalk is available to children. Based on public input, the sidewalk width has been revised to 1.6 meters (5.25 feet). The width of the boulevard will be 1.7 meters (5.58 feet).

8. Comment: Why is there no mention of a LOS for pedestrians?

   Response: The pedestrian LOS measures currently defined in the 1994 Highway Capacity Manual are based on the available space per pedestrian , the average speed, the flow rate the volume/capacity ratio. All these parameters indicate a concentration of pedestrian which currently only exist for extremely short periods of time at crosswalk locations. These LOS measures do not provide an accurate reflection of pedestrian LOS due to the limited time of the current pedestrian flows and the limited number of pedestrians. Due to the low volumes of pedestrians currently utilizing the area, no pedestrian measurements have not been evaluated.

9. Comment: Why was there no consideration for right turn "pedestrian islands" at the intersections?

   Response: Free flow right turn lanes with a pedestrian refuge islands were not recommended at the major intersections due to space constraints. There is not room for separated lanes with islands. Also, free flow lanes provide an opportunity for vehicles to turn at a higher level of speed while looking to their left for the gap in the vehicles stream. Both these conditions lessen the driver's awareness of a pedestrian who may wish to cross the free flow lane with no traffic control.

10. Comment: All sidewalks should be at least 5 feet wide, preferably 6 feet wide, not 4.9 feet. Five feet is the absolute minimum width to accommodate two people walking side-by-side, six feet is even better and would permit a small truck to snowplow the sidewalk.

    Response: Based on public input, the sidewalk width has been revised to 1.6 meters (5.25 feet). The width of the boulevard strip was reduced to 1.7 meters (5.58 feet) to avoid increased right-of-way impacts.

11. Comment: The intersection at National should be a full four-way crosswalk. It should also contain a REAL at grade pedestrian refuge at least 8 feet wide INSIDE the median that functions as a real safety zone for school kids to cross two-lanes of traffic at one time.

    Response: The ability to provide a pedestrian refuge 2.43 meters (8 feet) wide is constrained by the available width in the corridor. Additional right-of-way would be required for a wider median.

12. Comment: Do traffic signals provide pedestrian crossing time?

    Response: Pedestrian push button will be provided so that when used, crossing time will be provided. Adequate crossing time is provided only when the signal is pre-empted by the push button.

13. Comment: Concern about no traffic signal at YMCA pedestrian crossing.

    Response: The volume of pedestrians crossing near the YMCA does not meet warrants for signal installation contained in the Manual for Uniform Traffic Control Devices (MUTCD).

14. Comment: How will bike transitions be handled both in 1-way and 2-way and signing?

    Response: Signing will be provided for bicycles to clarify the transitions from on-street bike lanes to the off-street paths.

15. Comment: Underpass has safety problems with vagrants.

    Response: The proposed bicycle/pedestrian underpass is a grade-separated crossing of North Main and will connect to future bicycle paths. Since the bridge is large enough to provide for the path and the railroad line, the size of the opening allows for the underpass to receive natural lighting. The path under the bridge will also be visible from the approaches to the underpass.

16. Comment: The EA should discuss the acceptability of a pedestrian phase of 25-30 seconds in a coordinated traffic signal system.

    Response: It is not expected that pedestrian pre-emption of the signal will substantially effect traffic flow.

1.1.2 Comments Regarding Traffic and Design

17. Comment: The requirement that projects must meet LOS C at the end of the twenty year life-span, even though gaining that last bit of performance over the farthest years, might mean giving up other worthwhile investments.... Surely there are other ways to consider how best to invest our limited portfolio of resources to meet Helena's long-term transportation needs.

    Response: MDT and FHWA currently uses LOS C for its 20 year design standard to provide that an investment that will adequately serve the needs for an adequate period of time and not be a poor expenditure of federal and state funds. A 20-year design life is used to provide that a major improvement investment does not fail to meet the needs shortly after it is implemented. Several concepts were evaluated during the preparation of the EA including a two-lane concept and a three-lane concept. The evaluation indicated that the Level-of-Service would deteriorate to LOS F within ten years. The cost of these concepts were also substantial and did not provide adequate cost savings to warrant further consideration.

18. Comment: We recommend a maximum curb radius of 15 feet be used throughout the entire project. (Smaller curb radii would be preferred at the less heavily used intersections.)

    Response: Curb radii are sized so that any trucks that may turn the corner can do so without crossing other lanes or running over the curb. Most trucks are not able to turn a corner with a 4.5 meter (15 foot) radius.

19. Comment: The official design speed of this roadway should be 30 mph (approximately 50 kilometers per hour).

    Response: The assigned speed limit is determined in accordance with state laws by the Montana State Transportation Commission. It is based on the use and speed of the traffic on the facility. Substantiated speed limits typically do not affect how most people drive. The speed limit will be the same as it is currently posted at 60 kph (35 mph) which is appropriate for the current function and use of North Main Street..

20. Comment: Planning the roadway and intersections for a theoretical level of service (LOS) "C" for the project's 20 year life is unrealistic and an inefficient use of transportation funds.

    Response: See response for comment #17.

21. Comment: Page 4-12 refers to the 1965 Highway Capacity Manual. I believe there is more up-to-date information. Page 4-45 in section 4.6 is poorly written. It leaves out the biggest issue for cyclist and walkers which is the intersections, and refers to the medians as pedestrian refuges.

    Response: Although the 1994 Highway Capacity Manual is available from the Transportation Research Board, it does not contain the data on roadway speeds and capacities detailed in the 1965 Manual. The 1965 data was obtained for that document but was not forwarded into the updates to the Manual.

22. Comment: Speed limit should be 25 mph maximum.

    Response: See response for comment #19.

23. Comment: Will there be a signal at Villard? Villard will get more traffic.

    Response: The intersection of Villard and North Main Street is not recommended for a traffic signal at this time. Provisions will be made for the future installation of signal when the conditions indicate the need for a traffic signal.

24. Comment: Need a left turn arrow for traffic headed south on Cedar Street.

    Response: The Preferred Alternative includes a left turn arrow and that signal phase be provided.

25. Comment: Will northbound lane at Columbia be posted no U-turn?

    Response: " No U-turn" signs will not be installed.

26. Comment: Provide road consistent with upstream & downstream section. (Last Chance Gulch and Cedar).

    Response: The Preferred Alternative provides a roadway capacity for existing and projected traffic volumes. Traffic volumes on the Last Chance Gulch and Cedar Sections are different than North Main Street.

27. Comment: Why no double right turn southbound to westbound at Lyndale?

    Response: The proposed traffic volumes for this movements can be adequately carried by a signal right turn lane. Also, the geometric design of a double right turn lane would eliminate the ability to allow all right turn on red movements, which limits traffic flow and affects the overall intersection Level-of-Services.

28. Comment: The EA should explain that choice of a desired Level-of-Service (LOS is a policy or a lifestyle decision).

    Response: See response for comment #17.

1.1.3 Comments Regarding Transportation Planning

29. Comment: The EA does not address how funding on this project will determine other improvements in Helena as this trade-off for other improvements.

    Response: Helena's 1993 Transportation Plan addresses the long-term funding of this project and provides a method for prioritizing public funding options.

30. Comment: EA states "if No-Build then traffic will divert to Benton". Was this a model result?

    Response: The EA states that as congestion increases with the No-Build Alternative, traffic will divert to other routes such as Benton/Custer to avoid the delays due to congestion. The traffic model for Helena was not adjusted for this condition.

31. Comment: The EA should explain how the project will be funded and what impact that will have on the timing of future projects relying on the same funding source.

    Response: The Helena Transportation Plan addresses Major Network Improvements and prioritizes those improvements. North Main Street is a priority in the 1993 update of that plan. All higher priority projects have been completed.

32. Comment: The EA should discuss the resiliency of the forecast and the impact that it has on the choice between a new two-lane with median and a four-lane with median.

    Response: The information developed by the Helena Transportation Plan was compared to the growth of traffic volumes on the North Main corridor and the results were comparable. It is expected that a two-lane facility with a median and turn-lanes would operate a Level-of-Service F within ten years of completion.

33. Comment: The EA should indicate whether this benefit (less diversion of traffic to other routes due to congestion) is likely to be visible in the face of congestion, elsewhere in the Helena system.

    Response: The EA did not address congestion elsewhere in the Helena system. The entire Helena system is addressed in the Helena Transportation Plan.

34. Comment: The EA should indicate the major impacts of the Preferred Alternative on traffic flows around Helena.

    Response: Traffic flow around Helena is addressed in the Helena Transportation Plan. The North Main Street project is a recommended improvement in the Helena Transportation Plan.

35. Comment: The EA should state whether the Preferred Alternative will be enough to forestall strip development on Custer.

    Response: There are many factors contributing to the development patterns on Custer Avenue. Only to the extent that the Preferred Alternative will provide adequate traffic capacity on North Main and traffic will not further divert to Custer/Benton (to avoid congestion), will strip development on Custer be affected.

1.1.4 Comments Regarding Adjacent Properties

36. Comment: It is imperative that the access to the property at 1930 N. Main is on both sides of the building as shown on the Preferred Alternative.

    Response: The Preferred Alternative currently shows two access points onto 1930 North Main. Private accesses will be further addressed during final design.

37. Comment: Dell Sharbono restated that the EA, page 4-24 states "I may loose 12 parking stalls unless you use an option of a retaining wall." My concern is that I can't afford to loose 12 parking stalls.

    Response: A retaining wall will be considered in final design.

38. Comments: I am concerned about.....limiting the access into business to 15 feet.

    Response: The private access widths have not been finalized, and will be determined during final design.

39. Comment: Should combined access (to storage shed in back of MPC) be on MPC's north side to leave them both?

    Response: The configuration of the accesses into MPC will be addressed in final design.

40. Concern about access on NW side of Chestnut and about parking for apartments at 714, 722 & 724 Chestnut.

    Response: The access and configuration of any replacement parking will be addressed further in the final design.

41. Comments: Concern for loss of parking on state land plus his own spaces. He wants a wall at the back of sidewalk. Access at Poplar is critical. (TireRama)

    Response: The access and configuration of any replacement parking will be addressed further in final design.

42. Comment: Concern for the new project and loss of parking. Brian Abel wants to work with us during design. If Popular is closed it will be more difficult to turn left into Knoxville. (Knox Building)

    Response: The access and configuration of any replacement parking will be addressed further in final design.

43. Comment: Comments. (from Jerry Fetters)

43A. How does southwest bound traffic get into his station (Jerry's Highway Service)? Especially if there is no access off Chestnut.

Response: Southbound traffic will be able to turn left at the North Main Street/Villard/Chestnut intersection where access can be provided.

43B. Why is Skains being accommodated and Jerry's Highway Service is not? Mitigation - can Jerry be accommodated with part of closed Chestnut for parking U-hauls?

Response: The access configuration shown in the EA is conceptual and were shown to address the feasibility of replacing access/parking. Access and parking issues will be addressed further with individual property owners during final design.

43C. How will tankers serve property? Can pull out under canopy. Can a new canopy be installed?

Response: Final access and circulation design will be addressed during final design.

43D. Owner (Jerry's Highway Service) wants meeting with MDT and consultant to verify what the impacts are going to be.

Response: Coordination with adjacent landowners will continue in the final design

44. Comment: 1825 North Main's concerns are: parking existing & future, access to building, loading dock location (on Chestnut), delivery truck access, approach locations, EA should include these comments, construction period delays to business. (Skains Flooring)

Response: Access, parking, circulation, and construction access will be addressed during final design.

45. Comment: MPC is concerned about getting emergency vehicle access during construction.

    Response: The sequence of operations and traffic control during construction will be addressed during final design.

46. Comment. MPC concerned about left turns (in and out) while combining two driveways from service area & upper lot, during construction.

    Response: Access will be further addressed in Final Design.

47. Comment. MPC would like a widened access.

    Response: See response for comment #46.

48. Comment: Are you taking right-of-way from Furniture Showroom?

    Response: Additional right-of-way may be needed from the Furniture Showroom near the street corner of Dodge and North Main.

49. Comment: 1930 & Williams desire a joint use approach. Need all 3 accesses for 2 businesses. One off Columbia & two drives off North Main.

    Response: The design of access will be further addressed in final design.

50. Comment: Access to property on Dodge Street during construction as they need access for businesses. Would like to buy excess ROW.

    Response: The right-of-way acquisition process will be conducted by MDT after final design is completed.

51. Comment: Lanning Realty & Knoxville will lose parking. Lot to west of Knoxville will be used a lot more.

    Response: The configuration of any replacement parking will be further addressed in final design.

1.1.5 Comments Regarding Public Street Access

52. Comment: I suggest that the left turn lanes at West Chestnut be given as much consideration as a practical, also, several of these businesses have semi-truck trailers making deliveries.

    Response: The Preferred Alternative currently provides a separate turn lane for northbound turning west onto Chestnut. It is important to note that during peak hours left turners to northbound Villard Avenue will be stored in the left-turn lane across and past Chestnut west.

53. Comment: Northbound left turn lane at Chestnut. We recommend eliminating this turning movement and extending the median, full-width, through the curve.

    Response: An opening for left-turns to Chestnut west is included in the Preferred Alternative to provide access to numerous businesses and residences in the area.

54. Comment: The left turn bay designed for the western portion of Chestnut (into Sharbano's) should be completely eliminated leaving only the left turn lane onto Villard Avenue.

    Response: See response for comment #53.

55. Comment: I question if left-turn bays are necessary at Columbia and Chestnut?

    Response: Left-turn bays are needed at Chestnut to provide access for numerous businesses and residences. The southbound left-turn lane at Columbia is to provide storage for people making U-turns.

56. Comment: A left turn into that area (west Chestnut) depends on .....have a business in that area. ....Many would be mad if we didn't have access in and out of there.

    Response: The Preferred Alternative includes left-turn access to Chestnut west.

57. Comment: Northbound left turn at Chestnut discussion. Will there be left turn? There are 8 business that rely on this access. Need left turn in and out.

    Response: See response for comment #52.

58. Comment: Gold Street in only wide enough for 1 vehicle. Cannot replace access to westbound Chestnut.

    Response: The Preferred Alternative includes an access to westbound Chestnut.

1.1.6 Comments Regarding Landscaping

59. Comment: The EA contains different explanations of what is meant by replacement. Section 4.7.3, Mitigation (P.4-54), says mitigation "*could* include replacement of trees on a one-to-one replacement" (emphasis added). Section 6.2, Responses to Public Concerns (p.6-4), says, "If trees are removed, they *will* be replaced on an inch-per-inch (based on diameter) basis" (emphasis added). Growing Friends recommends that the EA state unequivocally that trees will be replaced on an inch-per-inch basis.

    Response: The EA states that trees removed will be replaced with other trees on an inch-per-inch basis measured in diameter. For example: If a 12-inch diameter tree is removed, it could be replaced with four 3-inch diameter trees, or something similar.

60. Comment: Growing Friends recommends that the EA direct final project engineering to treat trees as a design element as well as an aesthetic consideration.

    Response: Noted landscaping elements will be located to compliment roadway, bike lane, and path features. Special attention will be given to providing adequate sight distance between vehicles and non-motorized transportation.

61. Comment: Growing Friends recommends that the EA commit MDT to exploring the possibility of tree-planting partnerships with property owners and citizen groups such as Growing Friends.

    Response: Any partnership with a private group will need to be through the City of Helena. MDT will enter into an agreement with the City of Helena for the maintenance of the landscaping and the City may work with private groups for the continued care and maintenance of the landscaping..

62. Comment: Although the intended speed limit for the rebuilt North Main is 35 mph....(improvements) will result in considerably faster-paced traffic, which could negate improvements in the pedestrian/bicycle facilities....But really critical relief in the plantings in the medians-ie., lots of BIG TREES-to keep traffic speeds reasonable and to calm drivers' restless spirits as well.

    Response: Landscaping is planned for the medians, however, large trees will not be located in the median so that sight distance is not obstructed. Trees will be located so that they do not obstruct sight distance.

63. Comment: How will the boulevard be maintained? Would prefer concrete 10' wide or maybe grates with trees.

    Response: The boulevard maintenance will be the responsibility of the adjoining landowner. In the park areas, the boulevard maintain will be the responsibility of the Helena City Parks Department.

1.1.7 Comments Regarding the Preferred Alternative

64. Comment: I strongly recommend approval of this project. This must be built as recommended as a four-lane to handle existing and future traffic. The Department of Highways should look at four-lanes from Montana to I-15 also.

    Response: The Preferred Alternative for North Main Street provides four lanes. Widening of Cedar Avenue from Montana Avenue to I-15 has been recommended as a Major Street Network Improvement in the Helena Transportation Plan prepared in 1993. Cedar Avenue from Montana to I-15, however, is beyond the scope of this environmental document and the project.

65. Comment: We (TDM Subcommittee) also recommend that all of the additional mitigation proposals that could be included in the Preferred Alternative are included (see p.4-54 of the EA).

    Response: The mitigation measures noted on page 4-54 are incorporated and included in the Preferred Alternative and this document, and are included in the proposed action.

66. Comment: Prefer 3-lane alternative.

    Response: The three-lane alternative was evaluated and was not forwarded because it did not meet capacity needs for existing and future traffic volumes.

1.1.8 Other Comments

67. Comment: The public must be involved in the engineering design phase of this project that occurs AFTER the EA is finalized and approved.

    Response: Public coordination is planned to continue into the design stage of the project..

68. Comment: The EA should suggest that city take immediate steps to look at zoning and address any zone changes & recognize land use changes.

    Response: Zoning and land use are all issues addressed by local agencies. It is not within the authority of MDT or the FHWA to comment on this type of local issue.

69. Comment: Concern about emergency vehicle access with regard to MRL spurline.

    Response: Construction phasing plans will require two-way traffic (one lane of traffic in each direction) to be maintained throughout construction activities.

70. Comment: What is construction schedule?

    Response: The project will be ready for construction in 1998. The actual construction schedule is dependent on funding availability.

71. Comment: Construction will be disruptive to businesses. Are you going to provide traffic during construction?

    Response: See response for comment #69.

72. Comment: Do not want any billboards.

    Response: Billboards that are located within the proposed right-of-way will be removed. The MDT and the FHWA does not have authority to restrict billboards off of the right-of-way.

73. Comment: Soft dig 10" gas line at Villard. 30-40" deep.

    Response: Utilities will be identified and located during final design.

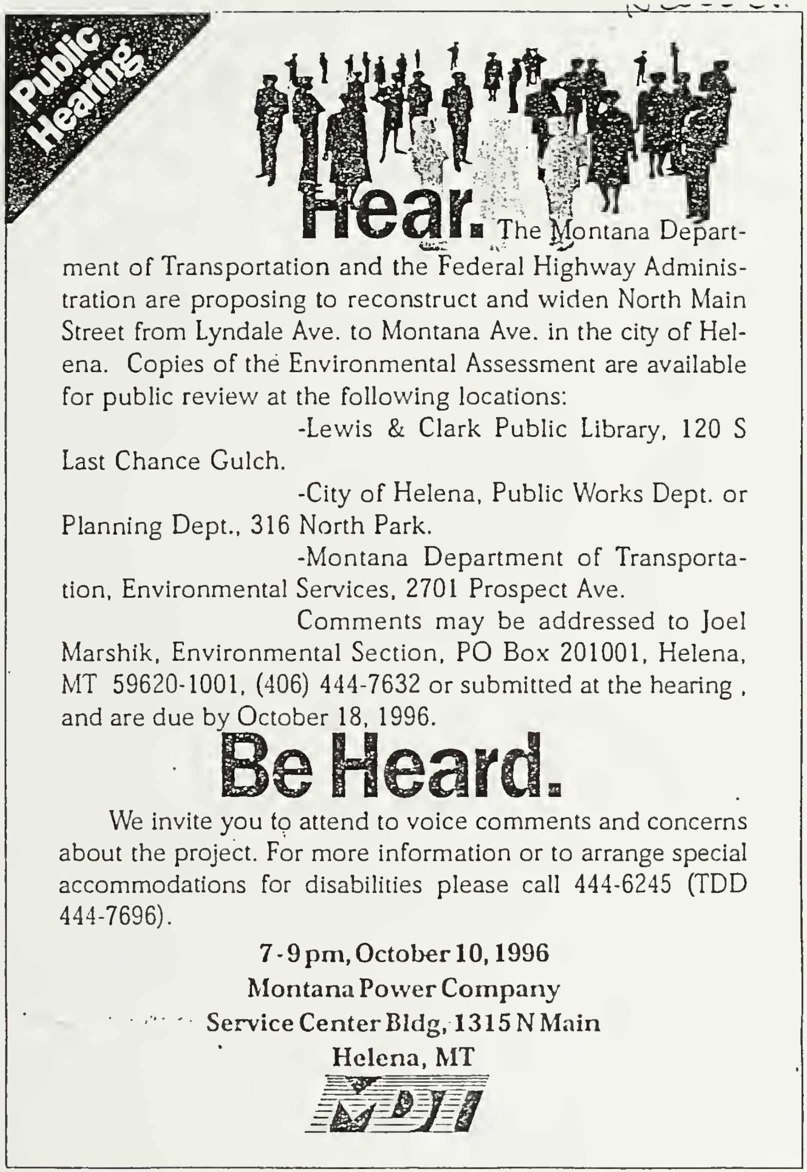
2.0 Selection of the Preferred Alternative

Based upon the Environmental Assessment, public hearing transcript and summary of comments and response, the Federal Highway Administration (FHWA) has determined that the alternative described on pages 1-5 through-10 of the Environmental Assessment and as modified below is the Preferred Alternative.

- ☐ The main left turn access in Memorial Park will be located directly across from the access to the YMCA in Bausch Park. The northern-most access to Memorial Park will be a right-in/right-out approach with a continuous median (without an opening) adjacent to it. This modification was done in consideration of profile grades for the northern most access; pedestrian and bicycle circulation; and vehicular circulation in the Memorial Park parking area.

Appendix A

Public Notices



Public Hearing

Hear. The Montana Department of Transportation and the Federal Highway Administration are proposing to reconstruct and widen North Main Street from Lyndale Ave. to Montana Ave. in the city of Helena. Copies of the Environmental Assessment are available for public review at the following locations:

-Lewis & Clark Public Library, 120 S Last Chance Gulch.

-City of Helena, Public Works Dept. or Planning Dept., 316 North Park.

-Montana Department of Transportation, Environmental Services, 2701 Prospect Ave.

Comments may be addressed to Joel Marshik, Environmental Section, PO Box 201001, Helena, MT 59620-1001, (406) 444-7632 or submitted at the hearing, and are due by October 18, 1996.

Be Heard.

We invite you to attend to voice comments and concerns about the project. For more information or to arrange special accommodations for disabilities please call 444-6245 (TDD 444-7696).

7-9pm, October 10, 1996
Montana Power Company
Service Center Bldg, 1315 N Main
Helena, MT

MDT

Appendix B

Transcript of the Public Hearing

MINUTES
NORTH MAIN STREET
ENVIRONMENTAL ASSESSMENT
PUBLIC HEARING

Thursday, October 10, 1996
7:00 - 9:00 p.m.
Montana Power Building
1315 North Main
Helena, MT 59601

The Public Hearing for North Main Street Improve Project was held in Helena, October 10, 1996, at the Montana Power Building. 32 people attended the Public Hearing (sign in sheets attached). A project information pamphlet and a comment sheet were available to the public at the sign in table (attached). Comments were received from the public by way of public testimony, comments given directly to project officials during the open house portion of the meeting, and/or written comments dropped in a comment box located at the sign in table or sent in to the address listed in the handout. Project officials were available before and after the public testimony portion of the hearing to answer questions, receive comments, and respond to concerns the public may have regarding the project:

Project officials present:

Jeanette Lostracco, Carter & Burgess (Denver)
Mike Worrall, Carter & Burgess (Missoula)
Kathy Harris, Carter & Burgess (Missoula)
Jeremy Keene, Carter & Burgess (Missoula)
Joe Murphy, Carter & Burgess (Missoula)
Stephanie Denny, Carter & Burgess (Missoula)
Eric Marjerrison, Carter & Burgess (Missoula)
Dave Dreher, Montana Department of Transportation (Helena)
Jason Giard, Montana Department of Transportation (Butte)
Fred Bente, Montana Department of Transportation (Helena)
Bill Dunbar, SE&A
Dave Stahly, SE&A
Byron Stahly, SE&A
Loren Frasier, Montana Department of Transportation (Butte)

Five different wall displays were placed around the room for public information and viewing as follows:

1) Alternatives Considered

One Aerial Photo showing 4-Lane (Median)

One Aerial Photo showing 5-Lane (Turn Lane)

Turn Lane Alternative - Reasons Not forwarded

- Does not provide pedestrian refuge
- Uniform grid system reduces need for left-turn access from North Main
- Potential for future congestion (beyond 20 years) (as volumes exceed 30,000 vpd)
- public input

One Aerial Photo showing 4-lane & 5-Lane Combination

Combo-Alternative - Reasons Not forwarded

- Does not provide pedestrian refuge
- Uniform grid system reduces need for left-turn access from North Main
- Potential for future congestion (beyond 20 years) (as volumes exceed 30,000 vpd)
- public input

2) Proposed Action - Preferred Alternative

One Aerial Photo showing bike lane, sidewalk/bike path, raised median/boulevard, and paved surface

Visual graphic of the Preferred Alternative (attached)

Showing cross sections of the different portions of the road

Visual graphic showing bicycle/pedestrian underpass

Preferred Alternative explanation

- 4-lanes with raised median
- Off-street bide/pedestrian facilities from Lyndale to the MRL spurline overpass
- On-street bike lanes and off-street walks MRL spurline to Montana
- Landscaping on medians and boulevard
- Re-alignment of Chestnut east to align with Villard
- Ped/bike underpass on the MRL spurline

3) Purpose and Need

One aerial photo showing existing and future traffic volumes/level of service

Level of Service Definitions

Los	Intersections
A	No vehicle waits longer than one signal indication
B	On a rare occasion vehicles wait through more than one signal indication
C	Intermittently vehicles wait through more than one signal indication, occasionally backups may develop, traffic flow still stable and acceptable

D	Delays at intersections may become extensive, but enough cycles with lower demand occur to permit periodic clearance, preventing excessive backups
E	Very long queue may create lengthy delay
F	Backups from locations downstream restrict or prevent movement of vehicles out of approach creating a "gridlock" condition

Purpose and Need Explanation

- Reduce congestion
- Improve facilities for non-motorized transportation
- Improve safety
- Enhance visual character
- Reconstruct deteriorating roadway and bridges
- Provide for on-going and anticipated growth

One aerial photo showing accident locations from 1/90 through 12/93

4) Impacts

One aerial photo of right-of-way impacts showing existing right-of-way, proposed right- of- way, and temporary construction permit

One aerial photo of parking impacts showing impacted parking, non-impacted parking, and pedestrian/bike path

5) Visual graphic of preferred alternative (attached)

Visual graphic drawing of 4-lane with raised median (median breaks with left-turn lanes at intersections) and a 5-lane (with center turn lanes)

Visual graphic drawing of median

Visual graphic of raised medians - aerial view and front depth view

PUBLIC PRESENTATION

Mike Worrall, Carter & Burgess, opened the public portion of the meeting with an explanation of the evening's events and a summary of the preferred alternative of the proposed action. The preferred alternative is a 4-lane roadway with two lanes in either direction along North Main with raised median:

- Includes four 3.6 meter (11.8 foot) lanes with a 5 meter (16.4 foot) raised median
- Off-street bicycle and pedestrian facilities from Lyndale Avenue to the MRL spurline crossing - this includes a 3 meter (9.8) foot) path through Bausch/Centennial Park.
- Left-turn lanes and median openings at intersections.
- 1.6 meter (5.2 foot) on-street bike lanes from the MRL spurline to Montana Avenue.
- 1.5 meter (4.9 foot) sidewalks between the MRL spurline and Montana Avenue - these walks will be detached where possible.
- Landscaping on raised median and boulevards details of which have yet to be determined.

There are some drawings on the wall you may look at. The addition of turning lanes at the North Main/Lyndale/Last Chance Gulch intersection including a double left turn on the eastbound approach. The realignment of Chestnut Avenue (east) to align with Villard Avenue - this makes it a 4-way intersection. A pedestrian/bicycle underpass at the MRL spurline crossing beside the railroad spurline. Throughout the process we heard a lot of concerns about people crossing between the Parks, so we are proposing a 10-foot wide trail underneath the road where the spurline is located and also leaving the street level crossing. That will give people a choice for crossing the road. If you have some specific concerns or things you would like to see, please make sure we hear about them tonight.

The handout you received is an overview of what I just went over. It also includes the purpose and need of the project. It includes a description of alternatives that were considered but not forwarded. It has an insert that shows cross-sections of the preferred alternative. The last page is a summary of the impacts of the preferred alternative. The back page contains an address where you can send written comments regarding the project. There are Environmental Assessments throughout the room that you are welcome to take.

QUESTIONS & ANSWERS:

Question: Is there going to be a left-hand turn lane coming north onto Chestnut Street?

Answer: Yes, you will still be able to turn left.

Question: Going north on Main, you will be able to take a left to go west on Chestnut?

Answer: Yes

Question: If you are going east on Chestnut, can you turn left and cross over Main to go down toward Montana?

Answer: Yes.

Question: What happened to the proposed traffic signal at Villard?

Answer: What we are proposing is to install the wider section with the left-turn lane at that point and provide for a future signal by installing conduit underneath the road. We will watch the intersection after the improvements are made to see if a signal is needed or not. If we do need a signal, then one can be installed very easily.

PUBLIC HEARING PORTION

Dell Sharbono: 1826 North Main. In Chapter 4, Page 4-24 of the EA, it talks about my lot (Sharbono Construction) and the potential impact of the project. It says I may lose 12 parking stalls unless you use an option of a retaining wall. My concern is that I can`t afford to lose 12 parking stalls. That is my only concern. Thank you.

Paul Reichert: I want to commend everyone who has been involved in the project. The public involvement process has been great. Both MDT and Carter & Burgess have been great. I say that because I believe roads are public investments and they are very specific things we do to build community. They can either enhance our community or degrade our community. They should be things that add value to our quality of life and to local property.

Overall I think the project is great and the design of it is pretty good. A couple of things I am concerned about is that I feel it is really important that citizens and the public are actively involved in the engineering and design specifications of the project. It is my understanding that phase of the project occurs after the EA is finished. I think a lot of solutions can be found there. I'm talking about curb radius, slopes of the sidewalks, entry ways into properties, etc.

Regarding speed, I think this should be a posted limit of 30 mph. I feel that it is justified primarily to add some level of pedestrian safety. It already works on Lyndale and Benton. Slower speeds can actually enhance peak hour capacity because cars can drive closer together.

I am concerned about using Level-of-Service C as the design criteria for this project. I`m particularly concerned about what it does to the design criteria at the intersections at Lyndale and both sides at Montana Avenue. I think it is a somewhat unrealistic design standard to think that we can maintain and spend that kind of money to maintain Level-of-Service C - I don't think it is possible or necessary. I'm concerned that it is used to

justify excessively wide intersections both in terms of road width and number of lanes at the intersections. I looked at the peak hour capacity for this mythical projection of 2017 and found that there were about 40 cars turning right and we are adding a whole 12-foot section of road just so 40 cars can turn right. It seems kind of excessive.

Turning radius at all the entry ways both on the streets and into property, I think should be minimized to 15 feet. I think they need to be kept fairly minimal.
Sidewalks, in my opinion, need to be 5-feet wide minimum, not 4.9-feet wide. That space can be picked up by tweaking some of the design features.

I know this is unpopular, but I question if left-turn bays are necessary at Columbia and Chestnut? I think they may be unnecessary because of the number of turning movements that go into those roadways. North Benton already functions without turn bays. It is not the greatest setup, but it does function without turn bays. I question whether it is necessary to do that because the number of turning movements is very small.

Also I am very concerned about leaving the left turn into the Sharbono Construction area. Primarily because you will have traffic coming over a rise, down a hill, and around a corner. We are going from a 2-lane road to a 3-lane road and that will create some very unsafe conditions both for drivers and pedestrians at Villard. I think there are a lot of very useful reasons to extend that median around that corner and eliminate that left-hand turn. That property doesn't loose access because there is still a right turn in and out. It may be an inconvenience because they have had that access for a while, but I don't think it is necessary.

Dell Sharbono: Whether you want a left turn into that area depends on whether you have a business in that area. If that left turn lane is not there, a lot of us sitting in the room would be protesting a lot further. There would be a big problem if I didn't have a left turn lane. There would be a lot of us down on that end that would be fighting mad if we didn't have access in and out of there.

Paul Williamson: I'm about to buy 1930 North Main. Two of the things I am concerned about regarding Paul Reichert's comments. One is limiting the access into businesses to 15 feet. If you have a car coming out of a business and another car turning in, 15 feet obviously is not enough. Two is the access into Colombia. If that access were eliminated there would be no way to get into the sides of either one of the big chunks of property down there. I would be real concerned if that were eliminated.

OPEN HOUSE PORTION

The open house portion of the meeting was opened at this time. Comments were received from the public by project officials as follows:

Karl Ohs owns storage sheds in back of Montana Power. He has access through Montana Power. Should combined access be on Montana Power's north side to leave them both?

Glenn Middlestead owns apartments at 714, 722 and 724 Chestnut and is concerned about access on northwest side of Chestnut and about parking for apartments.

TireRama expressed concern for loss of parking on state land plus his own spaces ±29 spaces. He wants a wall. TireRama thinks it will have to relocate because of loss parking. Wants a wall at back of s/w. Access at Poplar is critical to TireRama.

The Knox Building stated that people are hesitant to rent now because of concern for the new project. Knox Building is concerned about loss of parking.

Regarding access in and out of Knoxville Building, Brian Abel wants to work with us during design. If Poplar is closed it will be more difficult to turn left into Knoxville.

Jerry's Highway Service:

How does southwest bound traffic get into his station? Especially if there is no access off Chestnut.

In 1962 when Jerry paved Chestnut, the city gave right-of-way up. This was actually Villard at the time. Why is Skains being accommodated and Jerry's is not? Mitigation - can Jerry be accommodated with part of closed Chestnut for parking u-hauls?

How will tankers serve property? Can pull out under canopy. Can a new canopy be installed?

Jerry wants meeting with MDT and consultant to try and work out details and see total impacts. We will set up meeting. Jerry would like to have meeting during design to verify what the impacts are going to be.

Jan Skains: 1825 North Main concerns are

- parking existing and future
- access to building
- loading dock location - access from rear will not work. Loading dock on Chestnut is needed.
- delivery truck and semi access
- approach locations
- document should include these comments
- construction period delays to business

Rodell Stern:

- MPC is concerned about getting emergency vehicles out during construction.
- MPC concerned about traffic getting in and out during emergencies with the left in and left out into service area combined with upper lot.
- MPC would like a widened access.

Paul Riechert suggests 25 mph speed limit, maximum 35 mph. Higher speed than this is inappropriate for this street. EA should suggest that city take immediate steps to look at zoning and address any zone changes and recognize land use changes.

Furniture Showroom: Are you taking right-of-way?

Station - 1930 Cedar. Paul Williams and Lynn Miller desire a joint use approach. Need all three accesses for two businesses. One off Columbia and two drives off North Main

Fred Radke & W.B. Rucker are concerned about access to property on Dodge Street during construction. Need access to businesses. Would like to buy excess right-of-way. How will the boulevard be maintained? Would prefer concrete 10' wide or maybe grates with trees.

Chestnut access:

- Remove northbound to westbound left-turn lane for safety
- keep for business access
- businesses did lose during street reconstruction this summer
- shorten left-turn bay at Chestnut (2 vehicle storage)
- left-turn lane (include 3 vehicles)
- don't land lock property

Will there be left turn access to West Chestnut?

Wants Chestnut (west) left open. There are a eight business that rely on this access to operate.

Access to West Chestnut should be maintained for left-turns in and left-turns out.

When water line was going in, it was very difficult for businesses on West Chestnut.

Gold street is only wide enough for one vehicle. Cannot use for access out of Chestnut (west) neighborhood.

Villard will get more traffic and poor openings with build or no build. Road needs to be built, congestion is there. Will there be a signal at Villard?

Cedar and North Main & Montana. No left turn headed south on Cedar Street. People complain and want a left turn arrow. Significant number of vehicles of making this left turn.

Columbia. Will north bound lane at Columbia be posted "no U-turn"?

Parking

Lanning Realty will lose parking. Knoxville will lose parking. Lot to west of Knoxville will be used a lot more.

Emergency Vehicles

Concern about emergency vehicle access with regard to MRL spurline. Not a well-developed network of streets in this area.

Construction

Keep road consistent with other sections (i.e., Cedar and Last Chance Gulch)

Construction Schedule? 1998, Construction may take two seasons.

Impacts of construction on businesses are a concern. Construction will be disruptive.

Previous construction (water line) had no regard for businesses.

Are you going to provide traffic during construction?

Construction schedule has slipped from 1997 to 1998. Wish it could be built sooner.

Question raised about time line?

Traffic signals

Do traffic signals provide pedestrian crossing time? Pedestrian button needs to be activated for adequate pedestrian crossing time.

Concerned about no traffic signal at YMCA.

Concern for kids crossing traffic at parks.

Double right turn southbound to westbound at Lyndale. Discussed land right-of-way impacts and signals operations.

Bicycle/Pedestrian Path

How will bike transitions be handled both in 1-way or 2-way? Signing?

Underpass has safety problems with vagrants.

Funding

EA does not address how funding on this project will determine other improvements in Helena. This project is a trade-off for other improvements. EA should mention this in financial context, although Long Range Plan should delve into it in detail.

Questions raised about funding?

General

Do not want any billboards. Advertisement signs should be limited on North Main street.

Friday afternoon at 3 p.m. is the worst peak hour.

Prefer 3-lane alternative.

Curve radius needs to be 15 feet. Slower turn equals less severity for accidents for pedestrians.

Project will be an improvement.

Median is ok with proposed access.

No medians.

Utility Soft dig 10 inch line at Villard, 30-40" deep

Do 39 kilometers instead of hectares in EA?

NORTH MAIN STREET PUBLIC HEARING
OCTOBER 10, 1996

SIGN-IN SHEET

NAME	ADDRESS	TELEPHONE NUMBER
Allan Bergum	2024 VILLARD #4	442-9150
Del [illegible]	1826 N MAIN	442-8122
Alan [illegible]	MDT	444-6061
Ron Mitson	1900 Gold	443-0550
KARL OHSI	BOX 212 59624	442-4758
Bonnie Gruber	493c Hwy 12 W	443-0518
Frank [illegible]	"	"
Charlie Ammell	646 CHESTNUT	449-7927
Rod Duncan (Fireman)	2025 N. Main	443-2115
BRIAN ABEL	1900 N. MAIN (PO BOX 2188, E. HELENA 59635)	442-6749
JANET SKAINS	1925 N. MAIN	442-6670
Rob Kingery	713 N. Warren St.	442-0596
W.B. Tucker	2266 N. Main	2-8020
Cary Gee	2475 Broadway	447-2500
Mike [illegible]	816 S Calif	442-2770
[illegible]	1317-9th	442-8112
Glenn Middlestead	714 Chestnut	443-4631
WALLY Bell	1619 Ohio	443-2594
Paul Cartwright	512 Madison	442-0528

NORTH MAIN STREET PUBLIC HEARING
OCTOBER 10, 1996

SIGN-IN SHEET

NAME	ADDRESS	TELEPHONE NUMBER
Chuck Hanson	316 N Park Ave	447-8430
Jerry Fitters	1901 N. Main	442-5087
Bonnie Miller	52 S Park	442-3290
Lynn Miller	52 S Park	442-3290
Janice Frisch	1517 Waukesha	3-2097
Paul Reichert	1611 Livingston	3-7272
Paul Williams	614 N. MAIN	9-7975
Allan Stricker	Box 4989	444-6935
Rodell Stern	M.P.C	442-4610
Mike [illegible]	MPC	442-4610
[illegible]		
Fred Rak	2100 N MAIN	443-3739
Bob Newhouse	1805 JOSLYN-228	442-5246

Sign-in to Speak

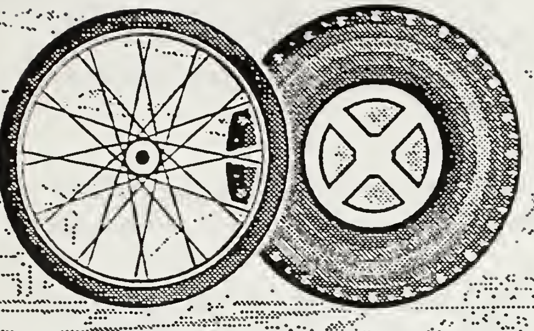
NORTH MAIN STREET PUBLIC HEARING
OCTOBER 10, 1996

SIGN-IN SHEET

NAME	ADDRESS	TELEPHONE NUMBER
Del [illegible]	1826 N. Main	442-8122
Ron Mitson	1900 Gold	443-0550
BRIAN ABEL	1900 N. MAIN	442-6749
Paul Reichert	1611 Livingston	3-7272

Appendix C

Information Provided at the Public Hearing



Helena

NORTH MAIN IMPROVEMENT PROJECT

Environmental Assessment

October 10, 1996 - Public Hearing

roposed Action

he Montana Department of Transportation (MDT) and e Federal Highway Administration (FHWA) are roposing to widen North Main Street from Lyndale venue to Montana Avenue. The Preferred Alternative cludes the following:

- **A Four-Lane Section with raised median.** This includes four 3.6 meter (11.8 foot) lanes with a 5 meter (16.4 foot) raised median and 0.6 meter (2 foot) shy distance.
- **Off-street bicycle and pedestrian facilities** from Lyndale Avenue to the MRL spurline crossing. This includes a 3 meter (9.8 foot) path through Bausch/ Centennial Park.
- **Left-turn lanes and median openings** at intersections.
- **1.6 meter (5.2 foot) on-street bike lanes** from the MRL spurline to Montana Avenue.
- **1.5 meter (4.9 foot) walks** between the MRL spurline and Montana Avenue. The walks will be detached where possible.
- **Landscaping** on raised median and boulevards.
- **The addition of turning lanes** at the North Main/ Lyndale/Last Chance Gulch intersection including a double left turn on the eastbound approach.
- **The realignment of Chestnut Avenue** (east) to align with Villard Avenue.
- **A pedestrian/bicycle underpass** at the MRL spurline crossing beside the railroad spurline.

Purpose & Need for Action

The primary purpose and need for improvements to North Reserve Street is to:

- Move people and products more efficiently by reducing congestion, and improve mobility by providing for existing and projected traffic volumes (average LOS C for a 20-year design life).
- Improve the facilities for other transportation modes, particularly pedestrians and bicyclists.
- Improve overall safety conditions for pedestrians, bicyclists, and motorized vehicles to reduce the number and frequency of accidents.
- Enhance the visual character of the corridor and provide a gateway into downtown Helena.
- Reconstruct the deteriorating roadway and bridge structures.
- Provide for on-going and anticipated growth.

Alternatives Considered

Alternative Considered but not Advanced

The following alternatives were considered but not advanced for further consideration in the EA:

Turn-Lane Alternative. This alternative includes four 3.6 meter (11.8 foot) through-traffic lanes (two in each direction) with a 5 meter (16.4 foot) flush, continuous, two-way left turn lane for the length of the project. Off-street, combination pedestrian/bicycle facilities are included from Lyndale Avenue to the MRL spurline crossing. On-street bicycle lanes are included between the MRL spurline crossing to Montana Avenue. Off-street pedestrian walks are included between the MRL spurline and Montana Avenue and are separated by a 1.8 meter (5.9 foot) boulevard strip.

This alternative was not forwarded for the following reasons:

- Lack of public support during the public coordination process.
- The continuous two-way left-turn lane does not provide a refuge area in the middle of the street for pedestrians crossing North Main Street.
- The presence of a uniform grid street system allows full access to side streets. This reduces the need for full access (right-in/right-out and left-in/left-out) from North Main Street.
- There has been public comment that the presence of a two-way left-turn lane will limit the visual quality of the corridor.
- As traffic volumes exceed of 30,000 vehicles per day, congestion will increase as a result of undefined left-turn movement. The traffic projections for the twenty-year design horizon are below this 30,000 vpd figure but are expected to approach it beyond the year 2017.

Combination Alternative. This alternative includes fo 3.6 meter (11.8 foot) through-traffic lanes (two in each direction) with a raised 5 meter (16.4 foot) median with 0.6 meter (2.0 foot) shy zones between the curb and the edge of lane. The raised median is included for the segment from Lyndale Avenue to the Chestnut (west) intersection. Left-turn lanes are provided at intersections. In the segment from the Chestnut (west) intersection to Montana Avenue, the alternative includes a 5 meter (16.4 foot) two-way left-turn lane instead of the raised median.

Off-street, combination pedestrian/bicycle facilities are included from Lyndale Avenue to the MRL spurline crossing. On-street bicycle lanes are included between the MRL spurline crossing to Montana Avenue. Off-street pedestrian walks are included between the MRL spurline and the Montana Avenue and are separated by a 1.8 meter (5.9 foot) boulevard strip.

This alternative was not forwarded for the following reasons:

- The continuous two-way left-turn lane does not provide refuge area in the middle of the street for pedestrians crossing North Main Street.
- The presence of a uniform grid street system allows full access to side streets. This reduces the need for full access (right-in/right-out and left-in/left-out) from North Main Street.
- There has been public comment that the presence of a two-way left-turn lane would limit the visual quality of the corridor.
- As traffic volumes exceed 30,000 vehicles per day, congestion will increase as a result of undefined left-turn movement. The traffic projections for the twenty-year design horizon are below this 30,000 vpd figure but are expected to approach it beyond the year 2017.

Alternatives Advanced

No-Build. The No-Build Alternative would retain the existing two-lane roadway.

Four-Lane with Raised Median Section (Preferred Alternative). This alternative is described on the first page under Proposed Action.

Impacts of the Preferred Alternative

- Transportation – Peak hour Level of Service of C or better; Preferred Alternative is consistent with the Helena Transportation Plan; Improved safety by decreasing number and frequency of accidents; Impacts to public and private parking; Modifications to access.
- Land Use – The Preferred Alternative will not likely affect future land use in an inconsistent manner from the Helena complete plan.
- Farmland – No Impacts.
- Socioeconomic – Improved transportation conditions on the roadway will improve social and economic conditions by providing safe facilities for pedestrians and bicyclists, improved operating conditions for automobile traffic, improved community cohesion by providing greater accessibility.
- Right-of-Way – Impacts to 33 Parcels. 2.20 hectares (5.43 acres) of additional required. 0.62 hectares (1.52 acres) of construction permits required.
- Pedestrians & Bicyclists – Improved travel links along North Main Street, and improved cross travel links with other facilities.
- Parks & Recreation
  - – Acquisition of 0.10 hectares (0.24 acres) of land for roadway purposes from Memorial Park. 0.21 hectares (0.53 acres) of construction permit on Memorial Park are needed.
  - – Acquision of 0.10 hectares (0.19 acres) for roadway purposes required from Centennial/Bausch Park. 0.32 hectares (0.80 acres) of construction permit on Centennial/Bausch Park needed.
- Air Quality – PM10 24-hour standard will not be violated.
- Noise – Design year noise levels increase of 3 dBA or less.
- Water Resources/Quality – Minimal impacts to surface water and ground water.
- Wetlands – No impacts.
- Wildlife – Negligible impacts.
- Floodplains – No Impacts.
- T & E Species – No Impacts.
- Cultural Resources – No impacts to archeological resources. Right-of-way impacts and impacts to one tree at Montana National Guard Armory. Recommendation of No Adverse Effect. No impacts (No Effect) to two railroad segments.
- Hazardous Materials – No Impacts.

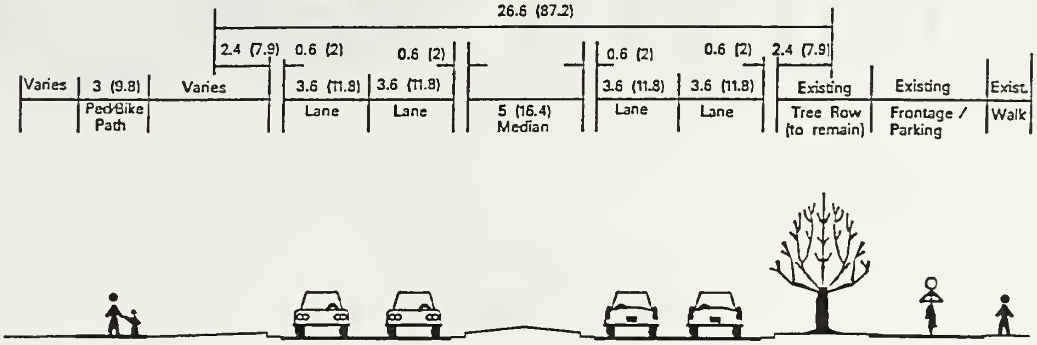
Impacts of the Preferred Alternative (continued)

• Visual	– Long-term impacts include: expansion of pavement, addition of raised median, expansion of pavement width broken up by medians, landscaping, organized access points, new bridge, removal of several sign boards, and removal of several trees – Short-term impacts associated with construction.
• Construction	– Construction related impacts include noise, vibration, erosion & sedimentation, water quality, visual, traffic, and access.
• Cumulative Impacts	– No Impacts.

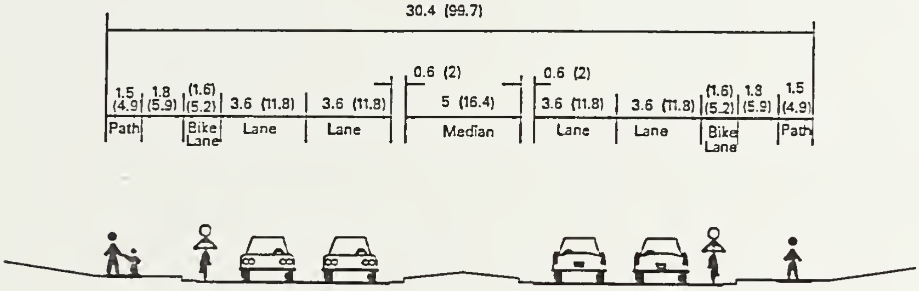
Your Comments are Encouraged

Comments on the Environmental Assessment are due by October 18, 1996. You can give us your comments at the Public Hearing or you can send written comments to:

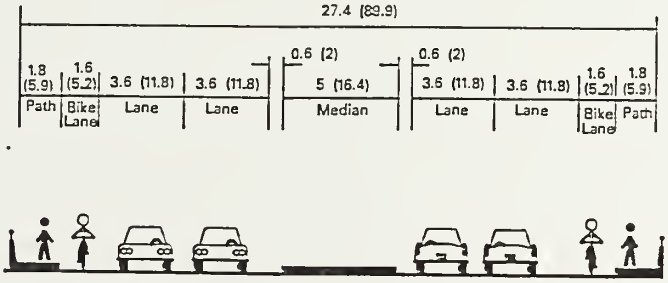
Mr. Joel Marshik
Environmental Services Director
Montana Department of Transportation
2701 Prospect Avenue
Helena, Montana 59620



Lyndale Avenue to MRL spurline X-ing



MRL spurline (south r.r. X-ing) to Montana Avenue



North Main Street at Bridge Crossings

Notes: Boulevard strip included between bridges
All measurements are in meters (feet)
Attached walks between Lyndale and Memorial

Helena
NORTH MAIN
IMPROVEMENT
PROJECT

Public Hearing
COMMENT SHEET

I have the following comments or questions about the North Main Street Project:

____

____

____

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____

____

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____

____

Name ____

Address ____

Phone ______________________

(Above information is optional)

Appendix D

Written Comments Received

WHEELER
1716 HIGHLAND ST, HELENA MT 59601-4617 ✦ (406) 443-0809

October 14, 1996

RECEIVED
OCT 16 1996
ENVIRONMENTAL

MASTER FILE
COPY

cc: Carl Peil
Jason Giard
Joel Marshik

Mr. Joel Marshik
Montana Department of Transportation
2701 Prospect Ave
Helena MT 59620-1001

RE: North Main Street, Helena, MT

Dear Mr. Marshik:

This letter is a written comment regarding the proposed plan associated with widening North Main Street in Helena, Montana.

Although I am in support of bicycle/pedestrian paths as part of the project, there are several aspects of the currently proposed bicycle/pedestrian underpass immediately south of the Montana Rail Link (MRL) railroad spur line that need additional consideration:

Comment #

- Pedestrians and bicyclists traveling east-west along Lyndale Avenue will still have difficulty safely crossing North Main Street, because the proposed underpass is too far to the north for them to use conveniently. In addition, I understand Memorial Drive is being considered as a possible future bicycle/pedestrian route, which will require improved access to the west side of North Main Street. ← ①
- Pedestrians and bicyclists traveling between Memorial Park and the YMCA facilities may have difficulty safely crossing North Main Street, because the proposed underpass may be too far to the north for them to use conveniently.

As remedies to the above concerns, I offer the following solutions:

- Add an additional bicycle/pedestrian underpass (or overpass) closer to Lyndale Avenue, such as across from Memorial Drive.
- Shift the location of the current proposed bicycle/pedestrian underpass (or overpass) south toward the center of Memorial Park.

I realize my suggestion of an additional underpass may be a costly one. However, citizens and visitors need safe pedestrian and bicycle access to Helena's parks and recreational facilities. Including a sufficient number of properly located bicycle/pedestrian underpasses (or overpasses) should be a key part of the project's efforts to improve safety in this heavily used area of Helena.

Thank you for your consideration of my concerns.

Sincerely,

Gregg R. Wheeler
Gregg R. Wheeler

Helena
NORTH MAIN IMPROVEMENT PROJECT

RECEIVED
OCT 15 1996
ENVIRONMENTAL

MASTER FILE
COPY

cc: Joel Marshik
Carl Peil

Public Hearing COMMENT SHEET

I have the following comments or questions about the North Main Street Project:

As part of the original public meetings – Chamber of Commerce Transportation member – I strongly recommend approval of this project North Main is the natural route for anyone connecting from I15 to HWY 12 both commercial and private. This must be built as recommended *4 lane* to handle existing & future traffic –

Dept of Highways should look at 4 lanes from Montana to I15 also.

Name Mike Wall
Address Box 5087 Helena MT 59604
Phone 406-442-2770

(Above information is optional)

Growing Friends of Helena

P.O. Box 709 Helena, Montana 59624

October 10, 1996

RECEIVED
OCT 15 1996
ENVIRONMENTAL

MASTER FILE COPY

cc: Joel Marshik
Carl Peil

Joel Marshik
Environmental Services Director
Montana Department of Transportation
PO Box 201001
Helena, MT 59620-1001

RE: North Main Street - Helena

Dear Mr. Marshik:

Growing Friends of Helena is non-profit citizen group whose purpose is to promote a healthy, diverse, beautiful and productive urban forest in and around Helena. We have the following comments on the Draft Environmental Assessment of the North Main Street Project (STPU 5807-7) prepared for the Montana Department of Transportation (MDT).

We appreciate the EA's suggestion that trees that are removed by the project be replaced. However, the EA contains different explanations of what is meant by replacement. Section 4.7.3, Mitigation (p.4-54), says mitigation "*could* include replacement of trees on a *one-to-one* replacement" (emphasis added). Section 6.2, Responses to Public Concerns (p.6-4), says, "If trees are removed, they *will* be replaced on *on inch-per-inch* (based on diameter) basis" (emphasis added). **Growing Friends recommends that the EA state unequivocally that trees will be replaced on an inch-per-inch basis.** (59) ←

The final design should locate trees (or shrubs if appropriate) in ways that protect and enhance non-motorized modes and that define vehicle access points off North Main. **Growing Friends recommends that the EA direct final project engineering to treat trees as a design element as well as an aesthetic consideration.** (60) ←

It is possible that the number of trees needed for the project will be greater than the number called for as a mitigation strategy. Planting trees along commercial strips is one of Growing Friends priorities. We would consider assisting MDT in obtaining and planting trees along North Main. **Growing Friends recommends that the EA commit MDT to exploring the possibility of tree-planting partnerships with property owners and citizen groups such as Growing Friends.** (61) ←

Thank you for the opportunity to comment.

Respectfully,

Bob Throssell
President

"We believe a place the size of Helena containing the refinement, intelligence, and wealth that our city does, will very soon see the necessity of acquiring parks, improving our streets, and generally beautifying the town."

Annual report of the original Helena Improvement Society, January 1, 1900.

Helena
NORTH MAIN IMPROVEMENT PROJECT

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Joel Marshik
Carl Peil

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Public Hearing COMMENT SHEET

COMMENT NO. →

I have the following comments or questions about the North Main Street Project: The following business use West Chesnut as their main access
1. Sharbono Constr.
2. Capital City Mill Works
3. Thompson Nistler or Coldwell Banker
4. Helena Cycle Center
5. Charlies Auto Repair
6. Ron's Automotive
7. Modern Reproduction
8. Gruber Masonry
9. Montana Power Co. Sub Station
10. Parts Warehouse
11. T.C.I Cablevision yard

Their is several acres of undeveloped land west of main st. that would use this access.

(52) → I suggest that the left turn lanes at west Chesnut be given as much consideration as is practical - also several of these business have semi truck trailers making deliveries

Name Frank Gruber

Address 4930 HWY 12 West, Helena Mt. 59601

Phone 443-0518

(Above information is optional)

rson
00 Prospect Avenue
Helena MT 59601

TRANSPORTATION DEMAND MANAGEMENT SUBCOMMITTEE
HELENA AREA TRANSPORTATION COORDINATING COMMITTEE
HELENA, MT 59623

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Jason Giard
Joel Marshik

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October 14, 1996

Joel M. Marshik, P. E.
Manager, Environmental Services
Montana Department of Transportation
2701 Prospect Avenue
P. O. Box 201001
Helena, MT 59620-1001

Dear Mr. Marshik:

Attached are comments by the Transportation Demand Management Subcommittee (TDM) on the Environmental Assessment for the North Main Street Project in Helena. The TDM subcommittee is an advisory group to the Helena Area TCC. The North Main project design has been discussed in TDM subcommittee meetings several times over the last year. These comments were prepared by a working group of volunteers from the subcommittee.

I would like to express the committee's appreciation for the effort made by the District Engineer, Jason Giard, his staff and the staff of Carter Burgess who worked on this project to address requests for changes, analyses and alternative designs such as roundabouts. The committee believes the project is better because of their work and improvements in design.

This is a very important corridor to the Helena community. It is the gateway from the north to the downtown area. It connects downtown to the airport and to important commercial services. Along its length are many of the facilities that create the high quality of life we enjoy in Helena--Memorial Park with the bandshell, ice skating rink, pool, farmer's market and baseball field and the YMCA facility and soccer fields. Because of all these uses and the wide variety of users, the committee believes it is critical that the project design be multimodal, employing the best design practices of contemporary transportation engineering.

Our comments are mainly on factors affecting safety, viability and attractiveness of non-automotive modes, mostly biking and walking. Because of the relatively short time frame for comment, we have focused on what we believe are the most important issues from this perspective. We may have omitted design features or ideas that would improve safety for pedestrians and bicyclists, we encourage MDT and the consultant to pursue these as well. We also recommend that all of the additional mitigation proposals that **could** be included in the Preferred Alternative **are** included (see p. 4-54 of the EA). These possible proposals concern tree replacement, signage and markings, and pedestrian refuge within the median. One comment concerns the larger and longer-term issue of the impact of artificial contrainsts, apparently imposed by federal requirements, have on public investment decisions. We understand that that issue cannot be dealt with in the context of this EA, but we believe that fiscal realities will demand that this issue be faced someday, probably sooner than later.

(65)

Sincerely,

Marla Larson

Marla C. Larson, Chair

Attachment

cc: Mayor McCarthy
City Commission
William Verwolf, City Manager
Helena Area TCC members

Comments on EA for North Main

The first issue is not specific to this proposal, but to all proposals for Helena and the Helena valley. The 1993 Transportation Plan identified more than $70 million in projects "needed" over the next twenty years, but only about $12 million in forecasted revenues to fund those projects. Even if gas taxes or property taxes increase faster than forecast, there is still will be a big gap between needs and revenues. Such conditions require careful use of our scarce resources. The requirement that projects must meet LOS C at the end of the twenty year lifespan, even though gaining that last bit of performance over the furtherest out years, might means giving up other worthwhile investments. It seems the decision is being made out to be bipolar (1) either the city takes the project as given, or (2) there will be no project or improvement in roadway. This may have been feasible strategy when public revenues budgets were growing faster than needs such as the 1960's and 70's, but in the 1990's it will leave cities and counties struggling with more and more unanswered problems. Surely there are other ways to consider how best to invest our limited portfolio of resources to meet Helena's long-term transportation needs.

A second consequence of designing this project to maintain a peak-hour LOS of C (in addition to high cost) appears to be compromised safety, performance and appeal of the pedestrian and bicycle facilities, as detailed below.

The preferred alternative is undeniably a great improvement over the current situation for walkers and cyclists. But ped/bike facilities are only as good as their 'weakest link'. If we are to maximize their use, and maximize mobility and access for non-drivers (and realize a benefit in reduced congestion for drivers), they must be uniformly functional and attractive. The following comments address specific design improvements to the preferred alternative that would do just that: make the entire system of ped/bike facilities more safe, functional and appealing.

1. Curb radii at intersections.
   The drawings show rather large curb radii at all intersections, including the Centennial Park entrance road. Large curb radii permit (in fact, are designed for) faster turning movements. Although of benefit for maintaining LOS for vehicles, the faster turning movements, coupled with reduced visibility between drivers and walkers/cyclists (due to the crosswalk being further set back from the street) seriously compromise the safety of walkers/cyclists, their sense of security and, hence, their willingness to use the facilities.

COMMENT NO.

⑱ → We recommend a maximum curb radius of 15 feet be used throughout the entire project. (Smaller curb radii would be preferred at the less heavily used intersections.)

② →

2. Pavement markings for bike facilities.
   To protect the on-street bike lane/shoulder from encroachment by vehicles, we suggest continuous striping and pavement markings with bicycle symbols. Also, the design should not hinder all-season maintenance of that space.

③ →

3. Medians at crosswalks.
   We feel a four-foot wide median is not enough at crosswalks, since a likely use will be for cyclists walking their bikes across North Main. In order to provide safe refuge for such users (and to provide a more comfortable and secure space for all users) we feel a minimum of 6 feet is required. If the additional space were obtained by narrowing the traffic lanes, perhaps a traffic calming benefit would also result.

④ →

4. The intersections at Lyndale and Montana.
   These two intersections are the Achilles' heel of this project - and of the current facilities. They are where the congestion is and where the accidents occur. They also illustrate why cities eventually turn to TDM and abandon LOS 'C' as a standard: there just isn't enough room to add sufficient lanes and stacking space at the intersections. Were it not for an accommodating geography that allows walkers and cyclists to avoid those intersections most of the time, we would object strenuously to their excessive width and lack of medians. As it is, we feel that at least the crosswalks themselves need to be visually accentuated, to warn drivers to watch for walkers/cyclists and to reassure walkers/cyclists that they aren't trespassing. We recommend some combination of color and pattern for the concrete or paving within the crosswalks.

⑤ →

5. The intersection at National.
   We do not understand why this intersection lacks a crosswalk on the east side of National. National is likely more important than Villard for walkers and cyclists, since it offers a 'quiet street' route across the railroad tracks and direct access to the Middle School. Over the 20 year design life of this project, National itself will undoubtedly see substantial improvements and increased use by vehicles. It is important to provide a full complement of crosswalks so that walkers and cyclists don't have to cross National twice just to cross North Main.

6. Landscaping the medians.
   Although the intended speed limit for the rebuilt North Main

COMMENT NO.

62 is 35 mph, we suspect that 12 foot wide lanes and medians will result in considerably faster-paced traffic, which could negate much of the improvements in the ped/bike facilities. This project really needs some built-in traffic calming elements. Reducing curb radii at intersections (to slow down turning movements) will help. But really critical to the success of this project is significant vertical relief in the plantings in the medians - i.e., lots of BIG TREES - to keep traffic speeds reasonable and to calm drivers' restless spirits as well.

7. Northbound left turn lane at Chestnut.

53 We recommend eliminating this turning movement and extending the median, full-width, through the curve. Our concern here is less for impacts to specific movements of walkers and cyclists than for general traffic flow, visual impacts, and traffic calming. A fully landscaped median at the curve would really help calm traffic; and those occasional, uncontrolled left-turn movements on a curve just past a signal seem intuitively dangerous.

8. Sidewalks on the bridges.

6 We recommend consulting an expert in bicycle facilities design to determine the appropriate curb height for the sidewalks on the bridges. Riding across the Lyndale overpasses is quite unnerving due to the excessively high sidewalks there; but we don't know what the appropriate height is.

Helena
NORTH MAIN IMPROVEMENT PROJECT

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cc: Jason Giac
Carl Peil,
Joel Marshik

ENVIRONMENTAL Public Hearing
COMMENT SHEET

COMMENT NO. 36

I have the following comments or questions about the North Main Street Project:

1. It is imperative that the access to the property at 1930 N. Main is on both sides of the building as shown on the preferred alternative. Also I will sign a joint access agreement on Columbia Ave. (closed), with the property owner East of me.

2. I question the wisdom of forcing our children to ride bikes in traffic, when a wider, seperate strip is avaliable next to the sidewalk.

Name Paul A. Williams

Address 1930 N. Main

Phone 449-7973

(Above information is optional)

Alternative Energy Resources Organization
25 S. Ewing, Suite 214
Helena, MT 59601

Phone: (406) 443-7272
Fax: (406) 442-9120
E-mail: aero@desktop.org

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cc: Jason Giard
Carl Peil
Joel Marshik

October 17, 1996

Joel Marshik, Environmental Section
MT Department of Transportation
PO Box 201001
Helena, MT 59620

Subject: **AERO's Comments concerning the Helena North Main Street Environmental Assessment (EA)**

Dear Mr. Marshik,

The following are the comments from AERO's Smart Growth and Transportation Project. Our comments do not discuss the many positive aspects about this project. Instead, AERO's comments focus on the issues and concerns we have which are poorly addressed in the EA and the preferred alternative design as shown in figure 1-5b (the map).

1. The public must be involved in the engineering design phase of this project that occurs AFTER the EA is finalized and approved. The urban design or "footprint" impact this project has on Helena is too significant to be left solely to engineers. There are several intersection design considerations not analyzed in this EA. AERO would like to be part of the engineering design team of this roadway (especially the intersections). (67) ←

2. The official design speed of this roadway should be 30 mph (approximately 50 kilometers per hour). This is critical in order to make the road safer for pedestrians and cyclists (see enclosed attachments). Moderating vehicle speeds through deliberate roadway design can increase the volume of traffic the roadway can handle because cars can more safely drive closer together. Slower speeds broaden the sight triangle of drivers allowing them to notice people on the side of the road and at crosswalks. It will permit more pedestrian friendly geometrics of roadway design (turning radius, length of turn bays, stopping distances, sight distance requirements). It will also improve the safety of the road for drivers by deterring higher speed accidents. (This is proven by the EA's own safety statistics mentioned on page 4-9, table 4-2, which seems to indicate that under existing conditions accidents occur at speeds less than 30 mph.) Widening the road without deliberate efforts to slow speeds (with design and streetscape features) may temporary reduce the accident "rate" but increase the severity of the accidents that occur. (19) ←

3. Planning the roadway and intersections for a theoretical level of service (LOS) "C" for the project's 20 year life is unrealistic and an inefficient use of transportation funds. There are several problems with using the LOS as the "driving" force behind roadway design and planning: (17) ←

- The state uses federal transportation funds to dictate the size, shape and urban function of the human environment effecting people and their sense of place.
- The state deceives the public by creating the false expectation that congestion can somehow be fixed by adding capacity.

- The state ignores the effects and impacts of its urban design decisions on the 25% of Montanan's that DO NOT use automobiles.
- The state uses an automobile engineering formula, with questionable assumptions about peoples driving habits, and uses it to decide what kind of physical environment Helena's should build.

The worst offense is what the LOS expectations are doing to the intersection designs at Lyndale Ave. and at Montana Ave. & Cedar. These intersections are over designed, adding expensive additional right-of way, adding too many lanes, and will be very hostile to people traveling on foot or bicycle. Urban areas should be using a LOS of "D" or "E" as their peak hour design criteria particularly at intersections. If the preferred alternative is used for designing these intersections the MDT will be guarantying that Helena looses any future option to:

- Transform these intersections and adjacent commercial areas into new "town centers" or focal points for redevelopment because of the excessive vehicle speeds and volumes at the intersections.
- Encourage local employees in the area to walk even the shortest distance to the store or bank because the intersections will be so hostile and unfriendly to walkers that even very short trips will be taken by car. No other "appealing" choice will be available. (creating a self-fulfilling congestion problem).
- Helena's desire for better transit and transportation demand management will fail do solely to the fact that the physical environment, designed and paid for with federal money, will destroys people's "sense" that walking is invited and encouraged in our town intersections.

The MDT must get off its addiction to LOS planning in urban areas and starting asking a new set of questions in its assessment of transportation planning. Questions about reasonably accommodating vehicle needs without compromising the needs of other modes and peoples desire for a livable city. Why is their no mention of a LOS for pedestrians? Why was there no consideration for right turn "pedestrian islands" at the intersections?

(53) → 4. The left turn bay designed for the western portion of Chestnut (into Sharbano's) should be completely eliminated leaving only the left turn lane onto Villard Ave. This will allow a full width median to be extended toward the Villard intersection. Eliminating the W. Chestnut turn bay is smart engineering and will avoid several existing and future safety hazards. I have several comments regarding this issue:

- Removing the turn will discourage excessive auto speeds heading east on N. Main St. by narrowing the view of drivers with a longer median streetscape. This will make pedestrian crossing at Villard safer because walkers will be facing slower speed traffic.
- Removing the turn will control but not limit access to this area.
- Keeping the left turn access will expose drivers to much more dangerous conditions when the four-lane road is built. It will increase the amount of time ("gap") that cars need to turn left across traffic to get into or out-of Chestnut. This will expose drivers to higher speed accidents and reduce the capacity of the road and the Villard intersection during peak hours.
- Have the city of Helena upgrade Gold St. so vehicles that turn left on Villard can more easily use the current street grid to access the local area.

(10) → 5. All sidewalks should be at least 5 feet wide, preferably 6 feet wide, not 4.9 feet. Five feet is the absolute minimum width to accommodate two people walking side-by-side, six feet is even better and would permit a small truck to snowplow the sidewalk for the entire length of the road without ripping up the boulevard or other landscaping.

COMMENT NO.

⑱ → 6. All turning radii for the public roads into North Main should be no greater than 15 feet in diameter. This is sufficient for the design speed and average type of traffic on this road. Turing radius's larger than 15 feet promote excessively fast turning movements and corner-cutting that is very dangerous for pedestrians. In addition, the sight distance for walkers on large turning radius corners is reduced because the road is wider at cross walks (increasing crossing time and exposure), and the pedestrian is harder to see because of their location on large radius curbs. (No. Benton and Custer is a perfect example of dangerous geometrics.)

⑪ → 7. The intersection at National should be a full four-way crosswalk. It should also contain a REAL at grade pedestrian refuge at least 8 feet wide INSIDE the median that functions as a real safety zone for school kids to cross 2 lanes of traffic at a time. The preferred alternative exposes walkers to very hostile conditions because of the left turn movements at the intersection.

8. AERO has two specific comments about the EA:

- page 4-12 refers to the 1965 Highway Capacity Manual. I believe there is more up to date information.

㉑ →

- page 4-45 section 4.6 is poorly written. It leaves out the biggest issue for cyclist and walkers which is the intersections, and refers to the medians as pedestrian refuges. The only walking refuge shown on the map is at the YMCA and Memorial park crosswalk. All the other crosswalks force walkers to across 4 lanes of traffic AND cars turning left. None of the other medians (at Villard and National) provide any pedestrian refuge.

Thank you for taking the time to consider AERO's comments. Please feel free to contact me if you have questions or would like clarification regarding these comments.

Sincerely,

Paul Reichert

Paul Reichert
AERO Program Coordinator

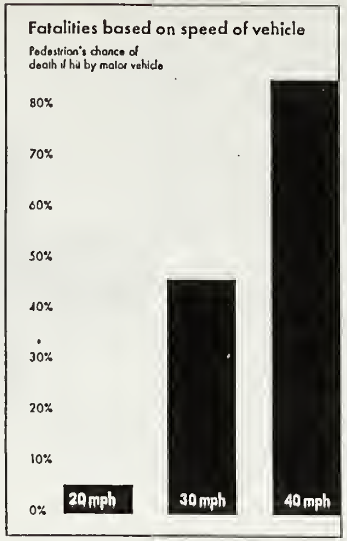
Municipal Strategies to Increase Pedestrian Travel

Final Report

Alternative Energy Resources Organization (AERO)
25 S. Ewing, Suite 214
Helena, MT 59601
(406) 443-7272

Washington State Energy Office

Rather than telling only pedestrians to be more careful, motorists should be held accountable for the consequences of their actions in the same way we no longer excuse drunk drivers from their crashes. Furthermore, we must also change the way we talk about crashes. Saying someone was hit by a car really means that person was hit by a driver or motorist, unless, of course, there really wasn't anyone in the car at the time.


Fatalities based on speed of vehicle

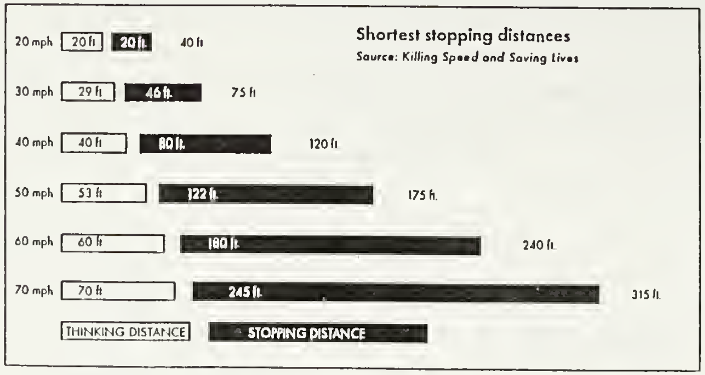
Research shows that when people walking are hit by a car

- at 20 mph, only 5 percent of walkers are killed, most injuries are slight, and 30 percent suffer no injury
- at 30 mph, 45 percent of walkers are killed, and many are seriously injured
- at 40 mph, 85 percent of walkers are killed

Many European cities have already reduced speed limits in residential and downtown areas to 30 kilometers per hour, the equivalent of 18 mph. Most U.S. residential speed limits are still 25 mph — a speed limit whose potential injury to walkers is too serious even if it were strictly observed. How fast are your neighbors driving through your community? ■

Speed

Much of the threat to walking safely comes from motorists' speed. The faster a motorist drives, the more likely he or she is to be involved in a crash, and the more likely injuries to a person on foot will be serious, if not fatal.


Shortest stopping distances
Source: *Killing Speed and Saving Lives*

Are You Ready For Some Action?

Now you've read about some of the best places for walking in the United States and learned about the benefits and hazards of walking, are you ready to take the plunge and change the way your community looks and feels?

The remaining pages of this guide tell you what you can do and how you can get it done. First, there's some technical information and advice on overcoming six of the most common obstacles to walking—everything from missing sidewalks to speeding traffic.

Next, you'll find practical advice on how to get organized, who to contact and how to have an impact in your community.

Finally, there's suggestions on the six most important things to ask for to make sure your traffic planners and engineers start to improve conditions for walking as a matter of routine. You'll also find a lot more resources and places to go for help.

Resources:

- *Killing Speed and Saving Lives.*
UK Department of Transportation, Marsham Street, London, SWI England

2.2.4 Buffer between pedestrians and auto traffic. Walking directly adjacent to solid objects weighing a thousand pounds and up, traveling at speeds an order of magnitude faster than yourself, can be intimidating and unpleasant. It is no wonder that many well-crafted sidewalks go under-utilized.

Pedestrians need a buffer between where they walk and the traffic. One common buffer is a planter strip, with grass, shrubs, and/or trees. Another buffer method is to allow on-street parking. The motionless cars provide a six-foot barrier between the sidewalk and the moving traffic.

2.3 Intersections and Crosswalks

The most dangerous place for pedestrians is, obviously, crossing the street - and crossing paths with the flow of motor vehicles.

Most intersections are designed to facilitate traffic flow, forcing walkers to cross wide expanses of roadway, to dodge fast-turning vehicles, and to wait for long periods for the right to cross.

How can intersections be made safer and more pedestrian friendly? Perhaps the obvious answer for most of us is to mark out a crosswalk. Marked crosswalks, however, do not appear to be an effective way to slow traffic or reduce accidents, according to Peter Lagerwey of the City of Seattle Engineering Department. Marked crosswalks may provide pedestrians a false sense of security because, in and of themselves, they do not send drivers a strong visual signal that the intersection is to be shared with pedestrians.

There are several design features that can be used to enhance pedestrian safety and ease of crossing at intersections.

2.3.1 Curb extensions (curb bulbs). "Curb bulbs" at street corners extend the sidewalk out into the crosswalk zone. As mentioned earlier, they are an important "traffic calming" tool. Curb bulbs benefit pedestrians wishing to cross in two key ways. First, they shorten the crossing distance and, thus, the amount of time the pedestrian is exposed to traffic in the roadway. Second, bulbs provide the pedestrian with a better view of traffic and drivers with a better view of pedestrians waiting to cross.

2.3.2 Turning radius. A large curb radius allows vehicles to negotiate a right turn rapidly, while a smaller curb radius makes for a sharper turn at the intersection, forcing vehicles to slow down. Traffic engineers often prefer the wide radius for vehicle convenience, but "the larger the radius, the more inconvenient and dangerous it becomes for pedestrians."[38] Not only do vehicles tend to turn corners with wide radii more rapidly but, by pulling back the street corner, the crossing distance for pedestrians is increased.

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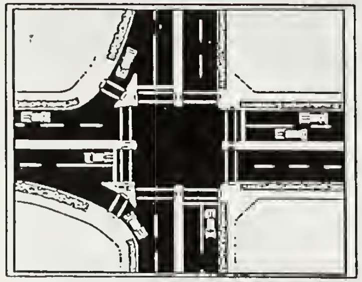
[38] Project for Public Spaces, 1993.

In Seattle, the design standard for curb radii at intersections of arterials is 25 feet, rising to 30 feet if many trucks or buses are present. At one time the standard was 15 feet, and the Central Business District had a 9 foot radius standard.[39] The Florida Department of Transportation's Pedestrian Program recommends that the roadway geometry at intersections should limit vehicle turning speeds to less than 20 mph on left turns, and 10 mph on right turns.[40]



Free Right Turn Lanes Courtesy of Florida Department of Transportation

2.3.3 Free right turn lanes. Special "free right-turn" lanes that slice off the street corner are often installed at intersections to allow vehicles to make speedier turns. Pedestrians must then cross the right-turn lane to reach an island formed by the original street corner, and wait there for an opportunity to cross the street.

Free right-turn lanes have extremely wide turning radii, which allow vehicles to maintain higher speeds. As a driver enters the free right-turn lane, the tendency is to look left for a gap in traffic. If drivers find adequate gaps, they can maintain their speed entering the new arterial. Looking left, however, does not allow a driver to see a pedestrian entering the crosswalk on the right.

These lanes consume pedestrian space, significantly widen crossing distances, and encourage higher-speed turning movements. Eliminating these lanes is an important step in making intersections more pedestrian friendly.[41]

2.3.4 Walk signals. At intersections with traffic lights, pedestrians commonly face two problems. First, the wait for the "Walk" signal is too long. Second, the walking time prior to the flashing of the "Don't Walk" signal is too short—a special concern for the elderly and others not able to cross the intersection at a fast pace.

These two problems are simply the result of placing automobile convenience over pedestrian convenience. Shortening the waiting times for pedestrians at intersections, and providing longer crossing times, are steps toward redressing this past imbalance in transportation mode prioritization. These steps should be taken first in activity centers where pedestrian activity and retail shopping are being encouraged.

2.3.5 Mid-block crossings and raised medians. Most suburban blocks are too long for pedestrians to conveniently utilize intersections when they need to cross the street. Mid-block crossings are crucial for increasing pedestrian access and convenience along these streets.[42]

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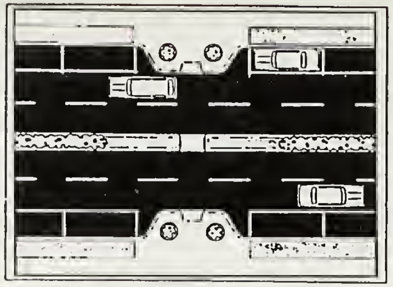
[39] Peter Lagerwey, 1993.

[40] Florida Department of Transportation, *Walkable Communities: Twelve Steps for an Effective Program*. Pedestrian/Bicycle Program, June 1993.

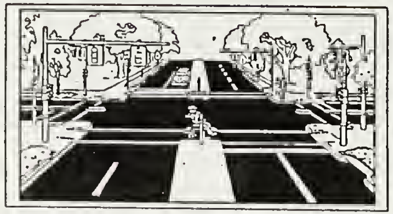
[41] Richard K. Untermann, 1991.

[42] Richard K. Untermann, 1991.


Raised Medians

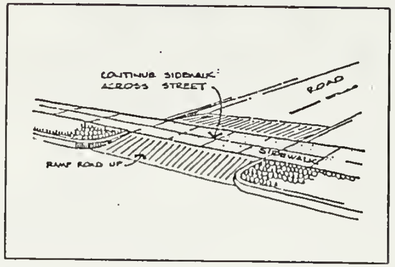
Raised medians are paved or landscaped islands that run parallel with traffic, separating the traffic flowing in opposite directions. Raised medians are a vital component to most mid-block crossings, providing a safe mid-point waiting area for pedestrians crossing busy, multi-lane arterials. The raised median also provide drivers on wide roadways a necessary visual cue that a crosswalk exists mid-block.

The Florida Department of Transportation (DOT) Pedestrian Program recommends that, "All current five and seven-lane cross sections should be retrofitted with raised medians." To enhance safety, mid-block crossings also need to be lit and marked well. Importantly, the medians must be cut at the actual crossing point for compliance with the Americans with Disabilities Act guidelines.[43]


Curb Ramps
Courtesy of Florida Department of Transportation

2.3.6 Americans With Disabilities Act guidelines. Almost 15 years ago, William Whyte wrote, "If circulation and amenities are planned with (the disabled) in mind, the place is apt to function more easily for everyone."

In 1990, Congress passed the Americans With Disabilities Act. Among other provisions, it prohibits state and local governments from discriminating on the basis of disability, and requires government services, programs, and activities to be accessible to people with disabilities. Technical assistance concerning the law's application is available by calling 1-800-USA-ABLE.



Raised Crosswalk

ADA guidelines recommend that to accommodate people in wheelchairs and with other disabilities, each street corner should include two curb ramps. Mid-block crossings should have curb ramps at each end.[44] The City of Seattle now installs about 400 wheelchair ramps at pedestrian crossings per year.[45]

Alternatively, the crosswalk area can be raised to the level of the sidewalk. Such a raised crosswalk will have additional traffic calming benefits, serving as "speed tables" that will slow traffic speed at intersections.

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[43] Florida Department of Transportation, 1993.

[44] Ibid.

[45] Peter Lagerwey, City of Seattle Engineering Department, Pedestrian Program Manager. Personal communication, March 11, 1994.

Rec'd 11/8/96

October 11, 1996

MEMO

TO: Colleen McCarthy
Mayor

FROM: Paul Cartwright
TCC citizen representative

RE: EA on North Main Project

My major concern with the Environmental Assessment (EA) for North Main Street is that it does not provide enough of the information needed to set this project in the context of overall transportation planning in Helena. Committing to a project, even a good project, means trading off other possibilities. These trade-offs should be made explicitly, to improve decision making and to reduce second guessing in the future. Such second guessing is probable for two reasons: First, the shortage of funds for identified road projects is likely to increase in relative terms rather than decrease. If that happens, system performance will deteriorate. The goal of transportation planning will become one of minimizing that deterioration. Second, because the amount of driving continues to increase, conventional engineering solutions, even when fundable, could easily be of a scale and nature that are unacceptable to neighborhoods or to the entire community. Decision makers will be forced into ever more difficult trade-offs between preferred road conditions and preferred social conditions.

An EA is not the place for a full examination of these issues. However, setting a project within a larger context is consistent with NEPA/MEPA direction to consider indirect impacts. Using information that probably already has been gathered, the EA could be made more useful to those making decisions about transportation in Helena. My specific comments follow.

COMMENT NO.

31 ← Funding impacts: The EA should explain how the project will be funded and what impact that will have on the timing of future projects relying on the same funding source, that is, STPU funds. A brief list of the major projects/problem areas in Helena that could use STPU funds should be provided.

17 ← Level of Service as a policy decision: The EA should explain that choice of a desired level of service (LOS) is a policy or a life style decision. Investing in a certain LOS can have real performance implications, but so does any investment in a financially constrained situation. For instance, the 1981 EIS, using 1979 traffic volumes, describes North Main as "operating at or over its design capacity." This reads as a strictly engineering evaluation. Fifteen years later, with traffic volumes increased by 38 percent and only minor additions of capacity at the two main intersections, conditions are indeed worse, but not as catastrophic or intolerable as one might have expected from the EIS.

32 → The limits of forecasting: Forecasting models, though undeniably valuable, rely on professional judgement which can carry policy implications. Forecasted congestion does not always materialize, such as in San Francisco following the Loma Prieta earthquake in 1989. Alternatively, the addition of road capacity can call forth extra and unforecast trips, creating congestion sooner than anticipated. Finally, forecasts rely on data that can have its own problems. (For instance, project documents give the average daily traffic volume as 15,200 vehicles per day (vpd) in 1993 and 17,100 vpd in 1994, a 12.5 percent in one year, which seems incredible.) The EA should discuss the resiliency of the forecast and the impact that has on the choice between a new two-lane with median and a four-lane with median.

33 → Impact on residential neighborhoods: The EA recommends the preferred alternative as a means of avoiding diversion of traffic to streets with a residential character. With the exception of Benton and Villard, it is not intuitively obvious which streets would be used to avoid congestion on North Main. Further, those two streets are likely to impacted by congestion on Custer and on Montana. The EA should state which residential streets will benefit from construction of the preferred alternative. The EA should indicate whether this benefit is likely to be visible in the face of congestion elsewhere in the Helena system.

34 → Impact on traffic flows in Helena: The preferred alternative could decrease traffic on some streets, such as Prospect-11th-Montana-Lyndale. It could increase the amount of traffic in general, and through-town traffic specifically, on North Main. The EA should indicate the major impacts of the preferred alternative on traffic flows around Helena.

35 → Impact on development patterns: The EA says the preferred alternative will reduce the pressure for strip development on Custer. Therefore, the EA should state whether the preferred alternative will be enough to forestall strip development on Custer. If strip development on Custer is likely to occur with or without any changes in North Main, then preventing strip development should not be claimed as a benefit of the preferred alternative.

16 → Impact on pedestrian travel: The size of the two main intersections should be described, and the implications of that for pedestrian travel discussed specifically. Based on the scale drawings, the north-south crossings at Lyndale appear to be 100-110 feet. At Cedar, they appear to be 110-120 feet. Even using a design walking speed of 4 ft/sec, pedestrians will need 25-30 seconds to cross. The EA should discuss the impact of these intersections on the volume of pedestrian travel. The EA should discuss the acceptability of a pedestrian phase of 25-30 seconds in a coordinated traffic signal system.

DEPARTMENT OF MILITARY AFFAIRS

MARC RACICOT, GOVERNOR
P.O. BOX 4789

STATE OF MONTANA

OFFICE OF THE ADJUTANT GENERAL
(406) 444-6910
HELENA MONTANA 59604-4789

September 27, 1996

COMMENT NO.

Facilities Management Office

Carter & Burgess
Consultants in Engineering, Architecture, Planning and the Environment
Mr. Michael F. Worral, P.E.
113 West Front Street, Suite 103
Missoula, MT 59802

Dear Mr. Worral:

We are in receipt of your letter and the Environmental Assessment (EA) on the North Main Street - Helena project. There is a question on the project, rather than the EA, although it was generated by the EA.

27

Requests from Department of Military Affairs regarding the Lyndale intersection were not mentioned in the description of the Preferred Alternative on pages 1-5 and 4-20 and figures 1-5a and 4-11. Was the EA done on the situation prior to the landowner meetings or were our requests rejected? Since our parking lot egress onto Lyndale is such a problem, I hope that we would have been informed if both our requests had been rejected.

If you have a chance, please check on this for us. I can be reached at (406) 444-6935. Thank you for your time and consideration.

Sincerely,

Allan V. Stricker
LTC, AR, Montana Army National Guard
Director of Facilities

Copy Furnished:
MT ARNG, The Adjutant General, Major General Prendergast
MT ARNG, Chief of Staff, COL Walsh
MT ARNG, Director of Maintenance, Mr. Denning

Appendix E

Environmental Assessment - September, 1996

North Main Street - Helena

STPU 5807-7

Environmental Assessment

Prepared for:

Montana Department of Transportation
2701 Prospect Avenue
Helena, Montana 59620
406/444-7634

Prepared by:

Carter::Burgess
113 West Front Street, Suite 103
Missoula, Montana 59802
406/721-1471

ENVIRONMENTAL ASSESSMENT

for

STPU 5807(7)
North Main Street - Helena
PMS Control No. 2319
in
LEWIS & CLARK COUNTY

This document is prepared in conformance with MEPA requirements and contains the information required for an Environmental Assessment under the provisions of **ARM 18.2.237(2)** and **18.2.239**. It is also prepared in conformance with NEPA requirements for an Environmental Assessment under **23 CFR 771.119.**

Submitted pursuant to **42 U.S.C. 4332(2)(C),**
Sections 2-3-104, 75-1-201 M.C.A.,
and **49 U.S.C. 303**(for 4(f)'s only)
by the
U.S. Department of Transportation
Federal Highway Administration
and the
Montana Department of Transportation

Submitted by: Joel M. M
Montana Department of Transportation
Environmental Services

Date: 9/5/96

Reviewed and Approved for Distribution:
Federal Highway Administration
Division Administrator

Date: 9/11/96

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Glossary

The following abbreviations and terms are contained within the text of this Environmental Assessment.

AASHTO	American Association of State Highway and Transportation Officials
AADT	Annual Average Daily Traffic - *The number of vehicles in one day averaged over one year*
AC	Advisory Committee
ADT	Average Daily Traffic - *The number of vehicles on a street segment on an average day*
CBD	Central Business District
CERCLA	Comprehensive Environmental Resource Compensation and Liability Act
CFR	Code of Federal Regulations
CFS	cubic feet per second
CMS	cubic meters per second
CO	Carbon monoxide
COE	US Army Corps of Engineers
dBA	Decibels -*A measure of sound pressure level*
EA	Environmental Assessment
EIS	Environmental Impact Statement
FHWA	Federal Highway Administration
FPS	Feet per second
fugitive dust	*Airborne particulate matter, or roadway dust.*
g	grams
GLO	General Land Office
kg	kilograms
km	kilometers
kph	kilometers per hour
L_{eq}	Equivalent sound level - *A measure of sound energy averaged over a certain time period, generally one hour (peak traffic hour)*
LOS	Level of Service - *A qualitative description of operations for a road segment or intersection*
MAQB	Montana Air Quality Bureau - *a division of the MDEQ*
MDEQ	Montana Department of Environmental Quality
MDT	Montana Department of Transportation
MPC	Montana Power Company
MPDES	Montana Pollution Discharge Elimination System
MRL	Montana Rail Link
NAC	Noise Abatement Criteria
NPDES	Non-Point Pollution Discharge Elimination System

NRCS	Natural Resource Conservation Service (formerly the Soil Conservation Service)
PM_{10}	Particulate matter less than 10 microns in diameter
RCRA	Resource Conservation and Recovery Act
ROD	Record of Decision
SCS	Soil Conservation Service
SHPO	State Historic Preservation Office
STAMINA 2.0	*A transportation system noise level modeling program*
T&E	Threatened and Endangered species
TIP	Transportation Improvement Program
USDA	US Department of Agriculture
USDOT	US Department of Transportation
USEPA	US Environmental Protection Agency
USFS	US Forest Service - *a division of the USDA*
USFWS	US Fish and Wildlife Service
VMT	Vehicle-miles-traveled
VPD	Vehicles per day

1.0 Description of Proposed Action

1.1 Study Area Description

The project area is located in Helena, Montana, entirely within Lewis and Clark County and the City of Helena (Figures 1-1, 1-2, and 1-3). It is located in Township 10 North, Range 3 West, Sections 19, 20, and 30 of the Montana Principal Meridian. The area of analysis is located on Federal Aid Urban Route 5807 (North Main Street) between Milepost 0.403 (Lyndale Avenue) and Milepost 1.217 (Montana Avenue). The area of analysis is the North Main Street corridor between Lyndale Avenue and Montana Avenue. This study area is inclusive of both intersections at either end of the project. The features of the corridor include:

- Intersection of Lyndale Avenue, North Main Street, and Last Chance Gulch. This intersection is the southern terminus of the project.

- National Guard Armory Building. This is located at the northwest corner of the Lyndale/North Main/Last Chance Gulch Intersection.

- Memorial Park. This park (further described in Section 4.7 and Section 5 of this document) is located on the east side of North Main Street and directly across from Bausch Park. Facilities within the park include a WWII Veterans Memorial, a band shell, a municipal swimming pool, a baseball stadium, and a day care center.

- Centennial/Bausch Park. This park (further described in Section 4.7 and Section 5 of this document) is located on the west side of North Main Street and directly across from Memorial Park. Facilities within the park include a YMCA recreation facility, a daycare facility, softball fields, and horseshoe pits.

- Montana Rail Link Railroad. This railroad bisects the City of Helena and crosses under North Main Street in the middle of the corridor. Currently there is a spurline (south track) and a mainline (north track) crossing.

- Old Helena Landfill. The old Helena landfill lies immediately west of North Main Street and north of Centennial/Bausch Park and the south track. It is no longer in use.

- Montana Power Company. Montana Power Company's offices and service facility are situated west of North Main Street between the north and south tracks.

- Commercial Area. The segment of the corridor that extends north of the north tracks and is characterized by commercial/light industrial development along the alignment.

- Intersection of Montana Avenue, North Main Street and Cedar Street. This intersection is the northern terminus of the project.

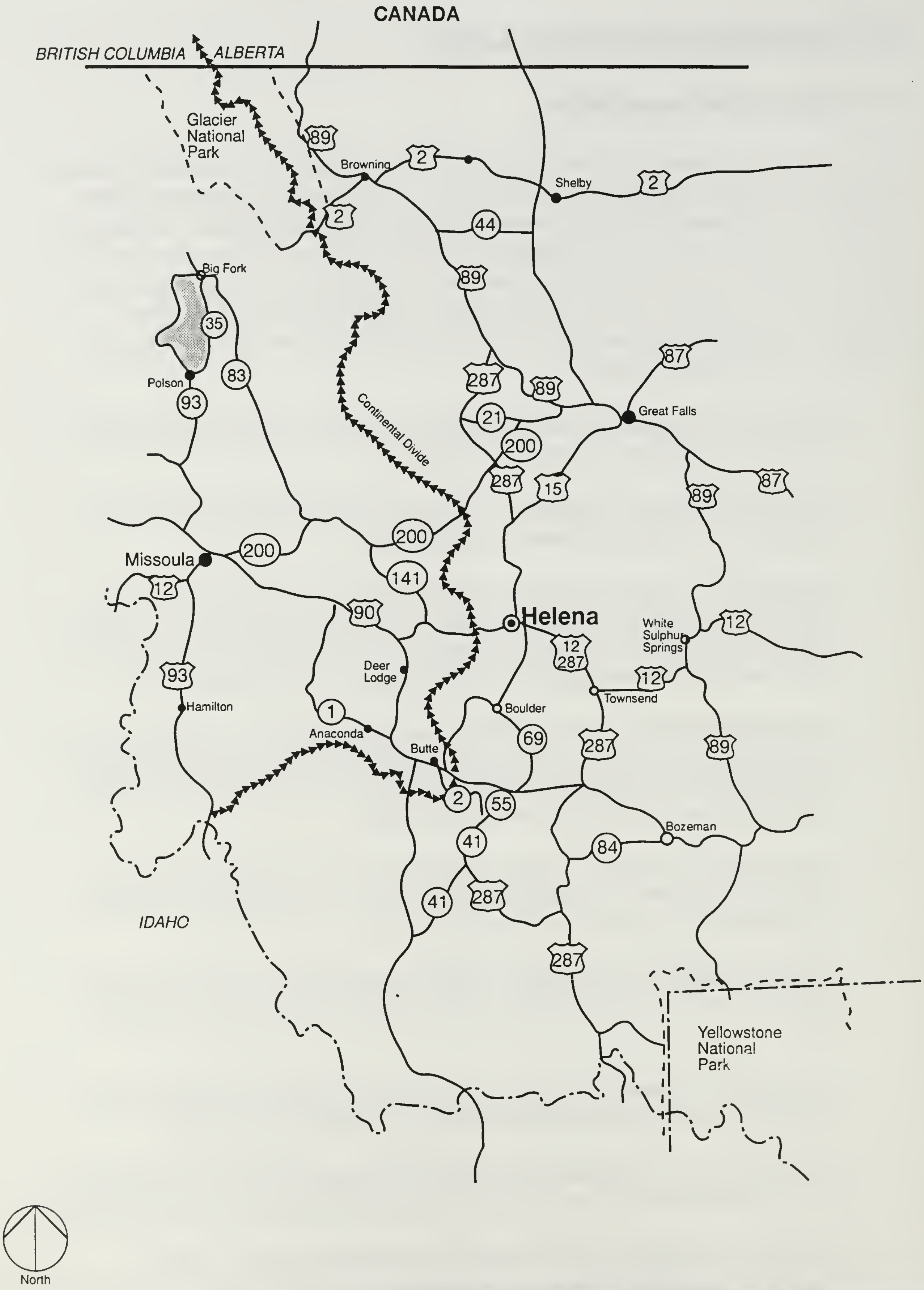


Figure 1-1
Regional Map

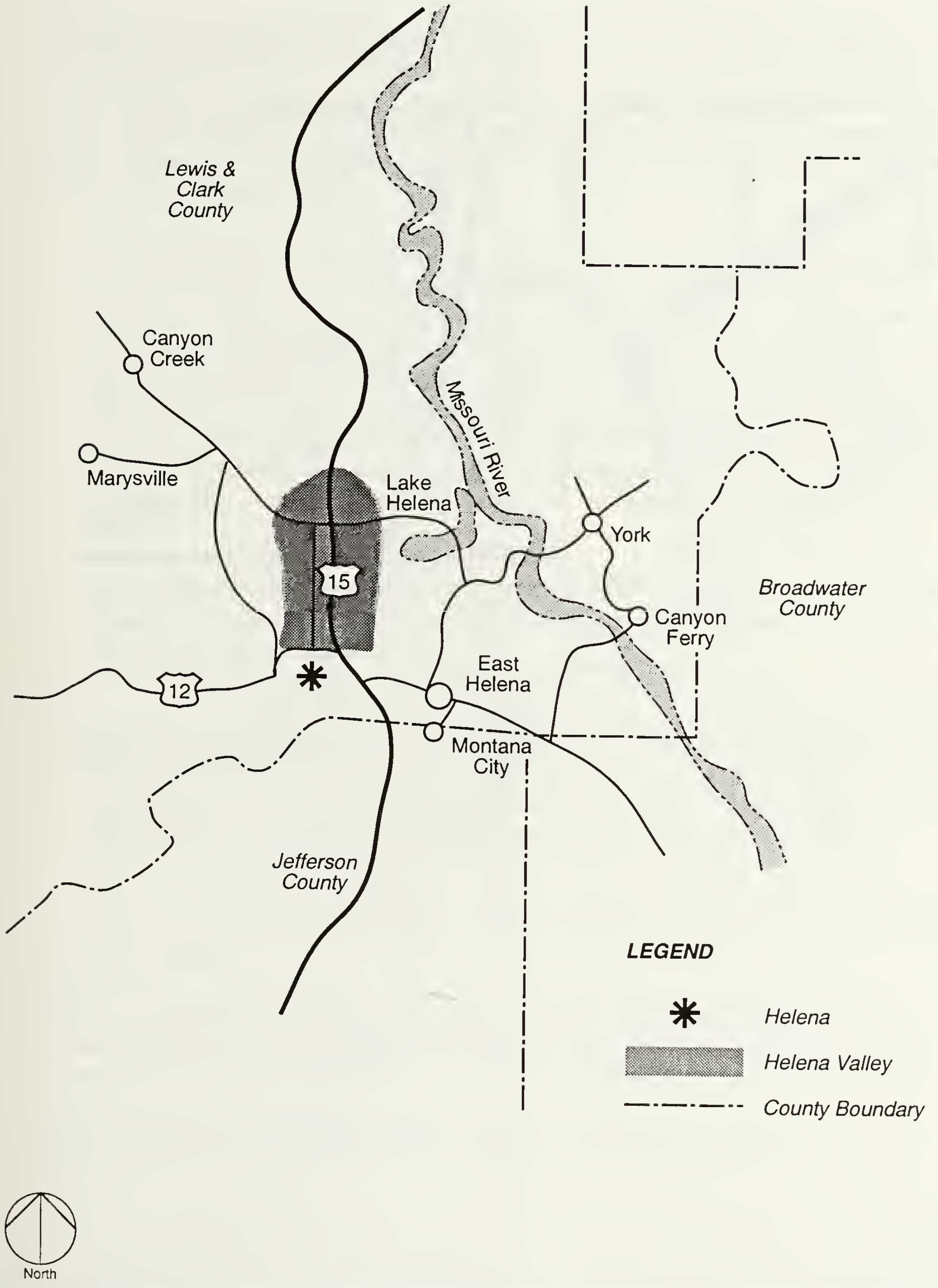


Figure 1-2

Greater Helena Area Map

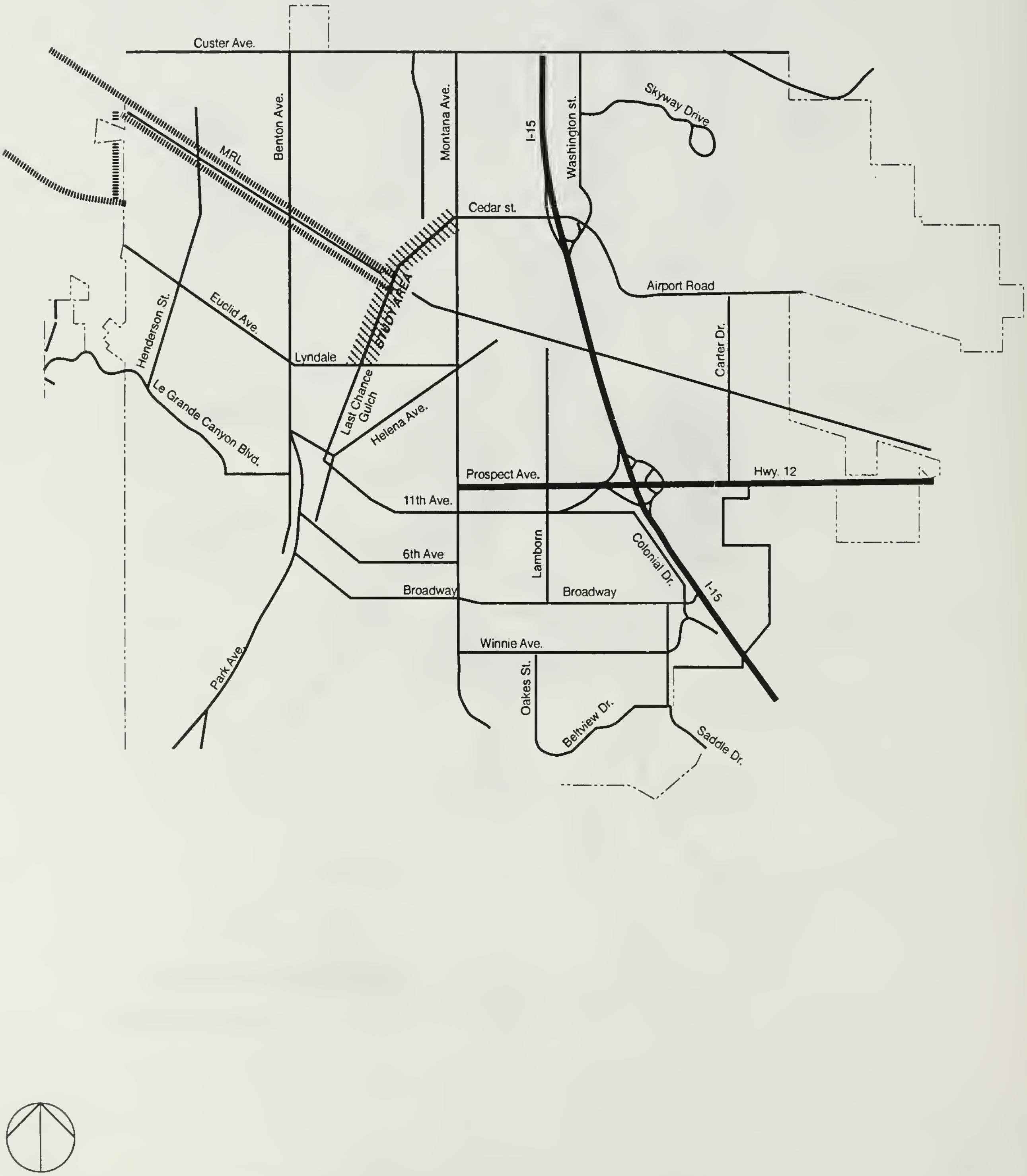


Figure 1-3
Vicinity Map

1.2 Description of Preferred Alternative

The Preferred Alternative is illustrated in Figures 1-4, 1-5a, and 1-5b. The project primarily consists of a reconstruction of the existing urban arterial roadway, currently a two-lane facility to a widened facility with four through traffic lanes (two-lanes each way), auxiliary turn lanes, bicycle facilities, and pedestrian facilities. The through lanes are to be divided by a raised center median. The elements of the improvements are more particularly described as follows:

- For the intersection of Lyndale Avenue and North Main Street: Eastbound (west leg) - construction of an additional left-turn lane to provide a double left-turn; Westbound (east leg) - construction of an exclusive right-turn lane; Southbound (north leg) - construction of the approach to include an exclusive left-turn lane, a through lane and an exclusive right-turn lane; Northbound (south leg) - restriping to provide a one shared right-turn/through lane, one through lane and an exclusive left-turn lane; modification of the traffic signal timing plan to allow protective/permissive northbound and southbound left turns; coordination of the traffic signal plan with other traffic signals on the corridor. The intersection will include cross-walks, and the traffic signals will be pedestrian actuated.

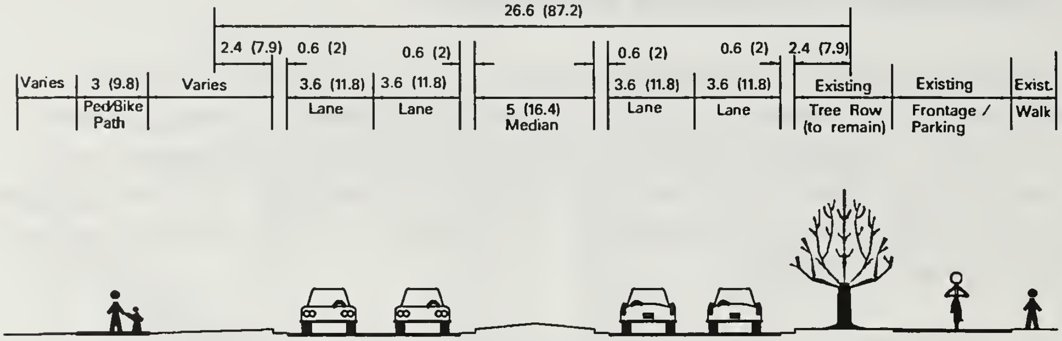
- Construction of a raised median through the length of the project from Lyndale Avenue to Montana Avenue. The median will have openings and left-turn lanes at major intersections and road approaches.

- Construction of combined pedestrian and bicycle facilities from Lyndale Avenue to the Montana Rail Link spurline crossing. The facilities will largely consist of a three (3) meter (9.84 foot) wide surface. They will be adjacent to the back of curb from Lyndale to Memorial Drive, and will be separated from the road between Memorial Drive and the spurline crossing. A new path will not be constructed in Memorial Park where pedestrians and bicyclists will use the existing walks and pavement

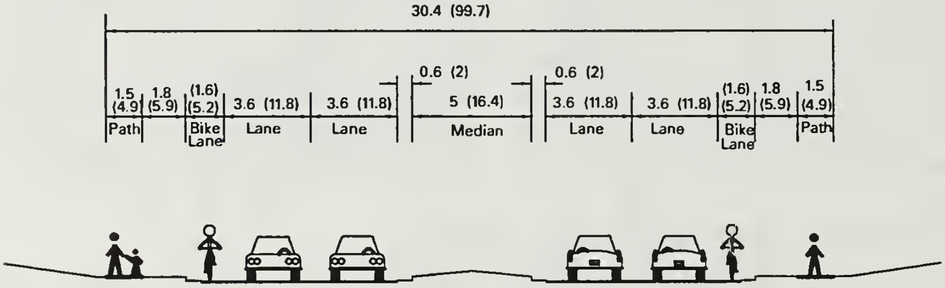
- The perpetuation and improvement of an existing pedestrian cross-walk near the entrance to Bausch Park.

- Reconstruction of the bridge crossing of the Montana Rail Link spurline. The new crossing will include the addition of a three (3) meter (9.84 foot) pedestrian/bicycle underpass adjacent to the spurline. (Shown in Figure 1-6).

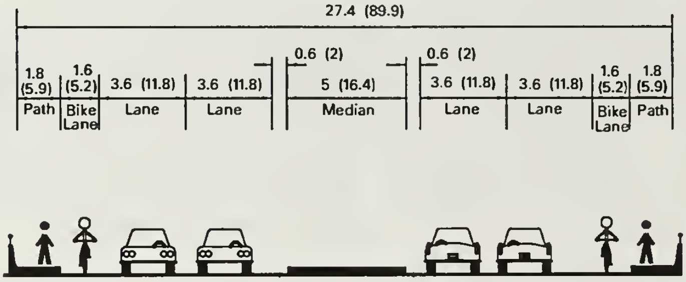
- Reconstruction of the bridge crossing of the Montana Rail Link Mainline.



Lyndale Avenue to MRL spurline X–ing



MRL spurline (south r.r. X–ing) to Montana Avenue



North Main Street at Bridge Crossings

Notes: Boulevard strip included between bridges
All measurements are in meters (feet)
Attached walks between Lyndale and Memorial

Figure 1-4
Preferred Alternative

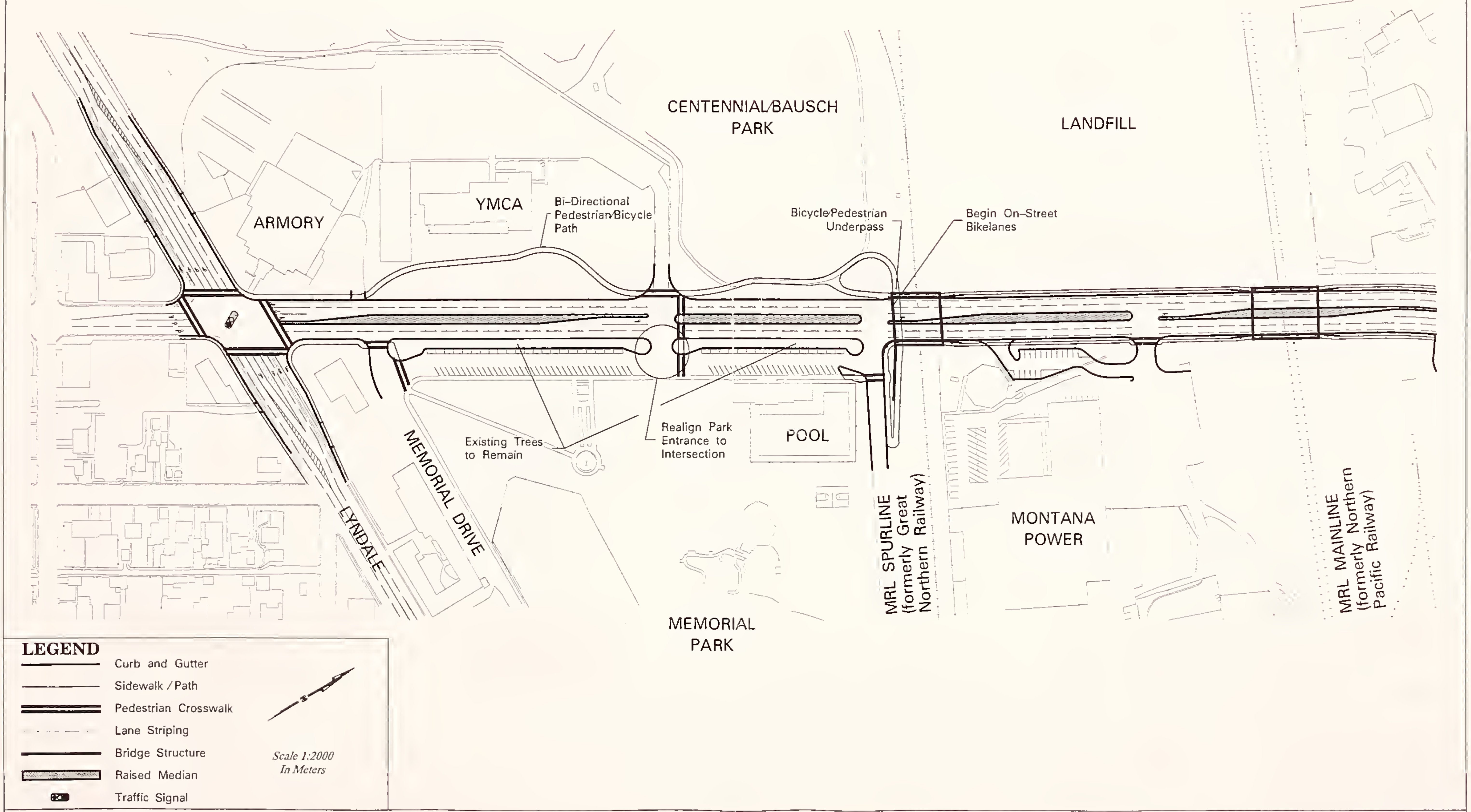
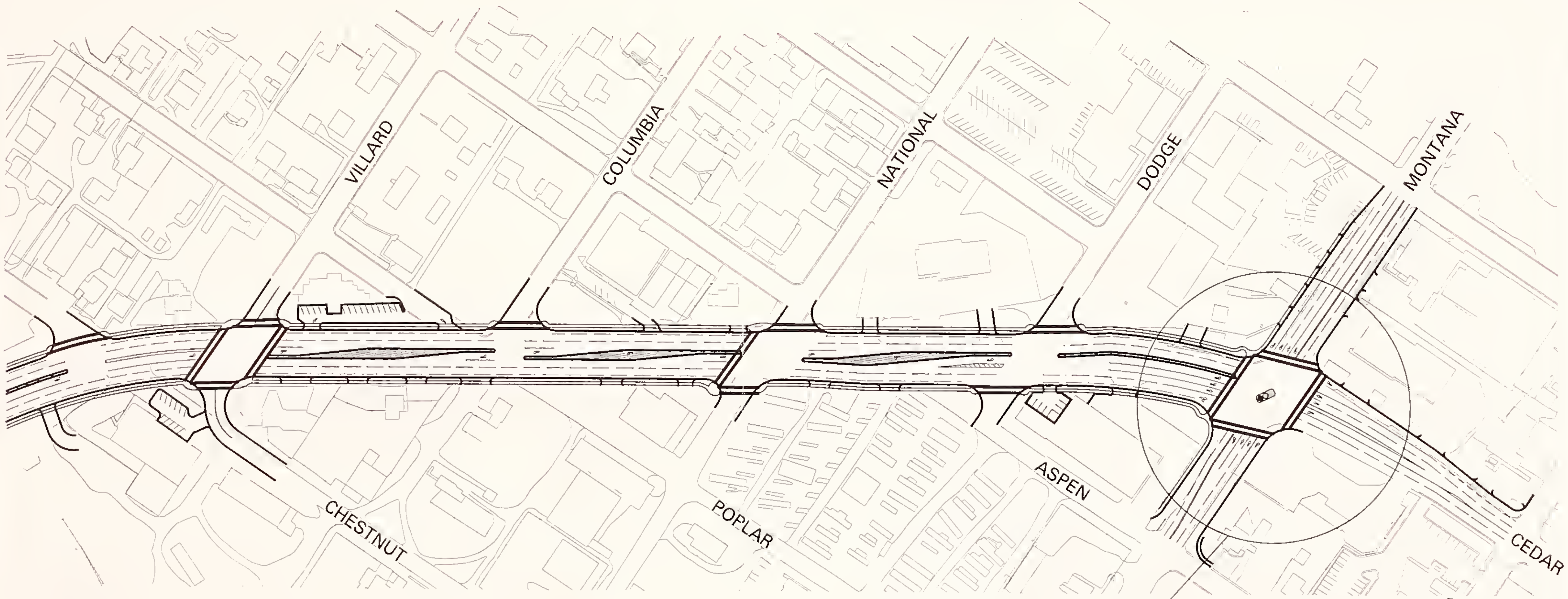
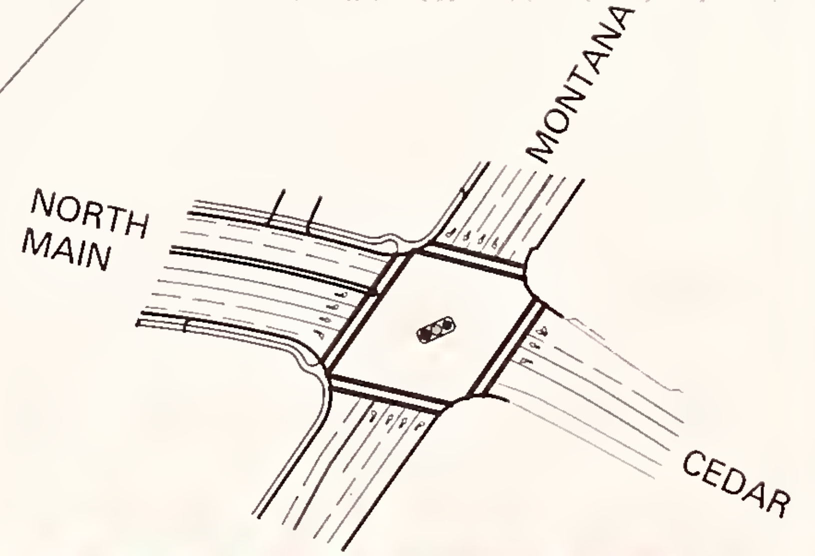


Figure 1-5a
Preferred Alternative – South Portion



Ultimate Channelization (to be phased at opening year, see opening year configuration at right)



OPENING YEAR CONFIGURATION

LEGEND

- Curb and Gutter
- Sidewalk / Path
- Pedestrian Crosswalk
- Lane Striping
- Bridge Structure
- Raised Median
- Traffic Signal

Scale 1:2000
In Meters

Figure 1–5b
Preferred Alternative – North Portion

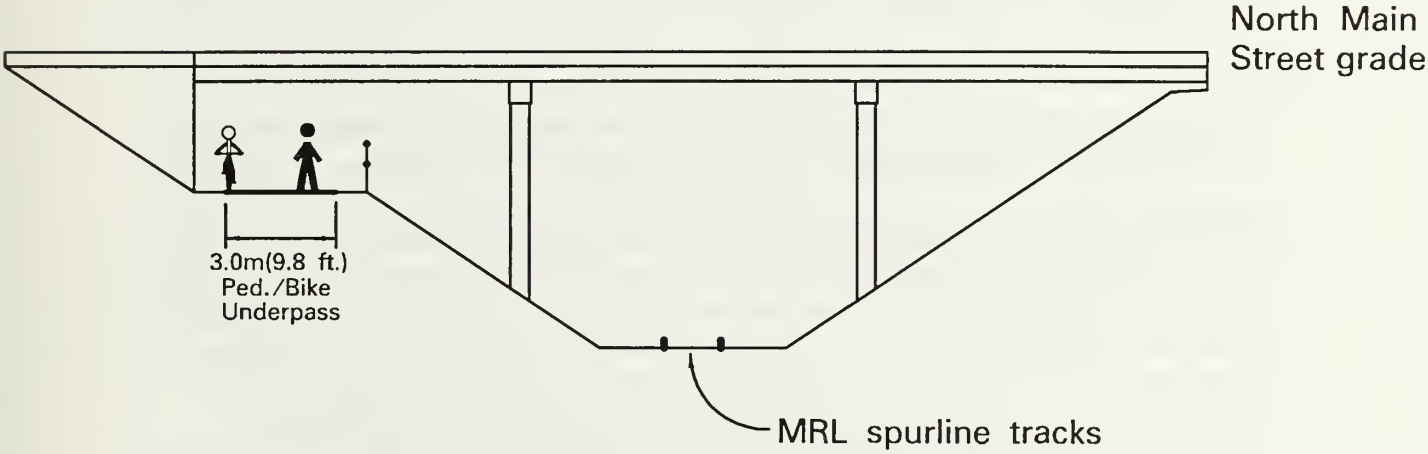


Figure 1-6
Bicycle/Pedestrian Overpass

- The realignment of Chestnut Avenue east of North Main to align with Villard Street. The North Main/Villard Street/Chestnut Street intersection will include the following improvements: the provision for a future traffic signal; the addition of exclusive left-turn lanes; the restriping of the southbound approach (north leg) of Villard Street to include the addition of an exclusive right-turn lane; coordinate the future signal timing plan with the traffic signals at the North Main Street/Lyndale Avenue/Last Chance Gulch and North Main Street/ Montana Avenue/Cedar Street. The intersections will include crosswalks and will be pedestrian activated.

- The perpetuation of the existing north-south cross-walk across North Main Street at National Street.

- The construction of a 1.5 meter (4.9 foot) pedestrian walk on each side of North Main Street. The walk will be separated from the face of curb by a 1.8 meter (5.9 foot) boulevard section. The walks will be constructed between the south entrance to Memorial Park and Montana Avenue.

- The provision of a 1.6 meter (5.2 foot) on-street bike lane between the edge of through-lane and the face of curb. The on-street bike lane will be present on each side of the street between the entrance to Bausch Park and Montana Avenue.

- For the intersection of North Main Street, Montana Avenue and Cedar Street: Eastbound (west leg) - construction of an additional left-turn lane to provide a double left-turn, an eastbound through-lane, and an exclusive right-turn lane (the eastbound right-turn lane will be modified to a combined through/right-turn when Cedar Street is widened for additional lanes to I-15 in the future); Westbound (east leg) - construction of a through lane to provide two through lanes when Cedar Street is widened for additional through lanes in the future; Northbound (south leg) - construction of one exclusive right-turn lane, one exclusive left-turn lane, and two exclusive through lanes; Southbound (north-leg) - construction of one additional exclusive southbound through lane for two exclusive through lanes; installation of an eight phase traffic signal controller to allow protective/permissive left turns in all directions; coordination of the traffic signal with the other North Main Street traffic signals. The intersection will include crosswalks and pedestrian actuation.

- Consolidation and definition of access in the corridor, through use of curb and gutter and driveway aprons.

- Access modification to public streets as follows: Limit Memorial Drive to right-in/right-out movements; close Poplar at North Main Street; realign Chestnut Street east to align with Villard Avenue; close direct access to Aspen Street; close the north alley approach between Columbia and National; close south alley approach between National and Dodge.

2.0 Purpose and Need for Action

2.1 Background and Authority

North Main Street (also known as North Last Chance Gulch) is a two-lane, two-way urban street that transects the Central Business District (CBD) of Helena, Montana. The segment of roadway that is covered by this Environmental Assessment (EA) is a 1.32 kilometer (0.82 mile) section from Lyndale Avenue to the intersection of North Montana Avenue and Cedar Street (Figure 1-3). This segment serves multiple types of traffic, including local and regional commuters, commercial trucks, tourists, pedestrians, bicyclists and emergency vehicles.

Last Chance Gulch has historically been a principal travel corridor serving traffic between the CBD and areas to its north and east, including major residential areas, shopping centers and the Helena Regional Airport. North Main Street is the City's most central connection and through route between Interstate 15 and US Highway 12 and is the only street near downtown Helena that is grade-separated from the active mainline Montana Rail Link (MRL) railroad tracks that bisect the City.

North Main Street was built in 1934. Currently, peak period traffic volumes have grown to exceed the vehicle capacity of North Main Street. Increased traffic congestion contributes to considerable delays within the study corridor and a relatively high accident rate at North Main Street's intersections with Lyndale and Montana Avenues. The roadway experiences congestion problems along the length of the project due to the following factors:

- Lack of adequate capacity during peak hours.
- Lack of channelization for the storage of turning vehicles.
- No definition of access points.

Additional turning movement channelization occurs only at the two signalized intersections at each end of the corridor as follows: A southbound right-turn lane and a southbound left-turn lane are present at the North Main/Lyndale intersection; A northbound left-turn lane and a northbound right-turn lane are present at the North Main/Montana intersection. Since turn lanes are not present at any of the intermediate intersections or driveways within the corridor, traffic delays and congestion occur as through traffic is impeded by vehicles waiting to turn left from the lane.

The high number of adjacent access points, lack of visible curb cuts, lack of left-turn and storage lanes, and lack of capacity during peak hours also contribute to accidents and near misses within the North Main corridor. The existing roadway pavement and bridges have deteriorated to a poor condition and are nearing the end of their service life. More detail about the existing facility and its deficiencies is found in Section 4.1 (the Transportation section of the EA).

A Final Environmental Impact/4(f) Statement (EIS) and Record of Decision (ROD) was completed for this project in 1981. In addition to the North Main Street Improvement Project, the 1981 EIS analyzed impacts of two other road segments adjoining North Main Street: Cruse Avenue between Sixth Avenue and Neill Avenue; and North Last Chance Gulch from Neill Avenue to Lyndale Avenue. Improvements to the Cruse Avenue segment were constructed in 1986 and the North Last Chance Gulch improvements were constructed in 1988. No construction has occurred within the 1.32 km (0.82 mile) segment of North Main Street between Lyndale and Montana Avenues since the 1981 EIS was prepared.

Due to the passage of time (15 years) since the ROD was signed, the environmental and design information in the EIS needed to be re-evaluated and updated to comply with new federal environmental regulations and to meet current design standards and traffic conditions. The Montana Department of Transportation (MDT) decided to prepare an EA to assess the impacts of changes in the proposed project design, to assess affected environment and to demonstrate compliance with changed environmental regulations.

2.2 Overview of Purpose and Need

The primary purpose and need for improvements to North Main Street is to provide capacity for existing and future traffic volumes, to reduce congestion, to improve safety on the facility for existing and future travel, to provide for improved intermodal connections, to provide for anticipated population growth and economic development, and to visually enhance the corridor with landscaped improvements. The improvements will be designed for a 20 year design horizon. The street will be designed to provide an average Level-of-Service (LOS) C for the 20 year design life. Level-of-Service is described in Section 4.1.2.2 and shown on Figure 4-5. Highway and Urban Arterial projects are typically built to have adequate capacity for projected traffic volumes 20-years beyond construction.

2.2.1 Traffic Conditions and Accident Data

Existing and projected traffic conditions are fully addressed in Section 4.1 Transportation of this document. As shown on Figure 2-1, current operating conditions during peak morning and evening traffic periods range from LOS C to LOS F for North Main Street's intersections with Lyndale and Montana Avenues and for turn movements onto North Main from adjacent access drives. LOS C is characterized by restricted movements, queues and delays, while LOS F involves unacceptable delays and congestion to all motorists. Through-traffic traveling along the segments of North Main Street between the Lyndale and Montana Avenue intersections currently experiences a LOS B or C when unimpeded by left-turns. The entire 1.32 km (0.82 mile) segment, however, has no turn lanes, thus turning movements are often difficult and vehicles turning left from North Main typically impede through traffic. Traffic operating conditions are projected to worsen noticeably by the year 2017 (the project design year) due to projected increases in traffic volumes, with an LOS F anticipated for the entire segment, resulting in considerable delays if no improvements are made to the existing facility.

North Main Street experiences an accident rate that is considerably higher than the statewide average rate within city limits (shown in Table 4-2A in Section 4.1). The majority of accidents along North Main Street have occurred at the intersections of Lyndale and Montana Avenues. Other accidents along the corridor have been distributed throughout the segment with no notable concentration at any one location. Most accidents within the study area have been rear-end or angle collisions. These types of accidents are typically related to traffic congestion and driver frustration.

2.2.2 Intermodal Facilities and Gateway Needs

North Main Street supports year-round pedestrian and bicycle use, but does not provide adequate walkways or bikeways along the length of the segment or adequate crosswalks at key crossing locations (Figure 2-2). Public comments received during the public involvement activities described in Section 6.1 indicated that many bicyclists and pedestrians avoid North Main Street because the segment lacks facilities to safely separate them from vehicular traffic. With ongoing deterioration of traffic conditions, the existing roadway serves as a barrier between residential areas located north of the corridor and community services located south of the corridor. Public comments have been received that noted the difficulty in crossing or accessing North Main Street as a result of the congestion.

The facility provides a direct approach into downtown Helena from the north and east while offering distant panoramic views of Helena's natural and man-made landscape. The parks adjoining North Main Street near its approach to Lyndale Avenue provide a landscaped element that compliments the City's visual character and creates a "sense of arrival" into the civic center area. The relationship of transportation improvements to maintaining and enhancing the visual quality of North Main Street was a major issue of discussion in scoping meetings. Some participants in the public coordination felt that the north portion of the facility transects a corridor of commercial development that has scenic characteristics of strip development (Figure 2-3). Numerous comments were received regarding the need to provide enhancements such as landscaping.

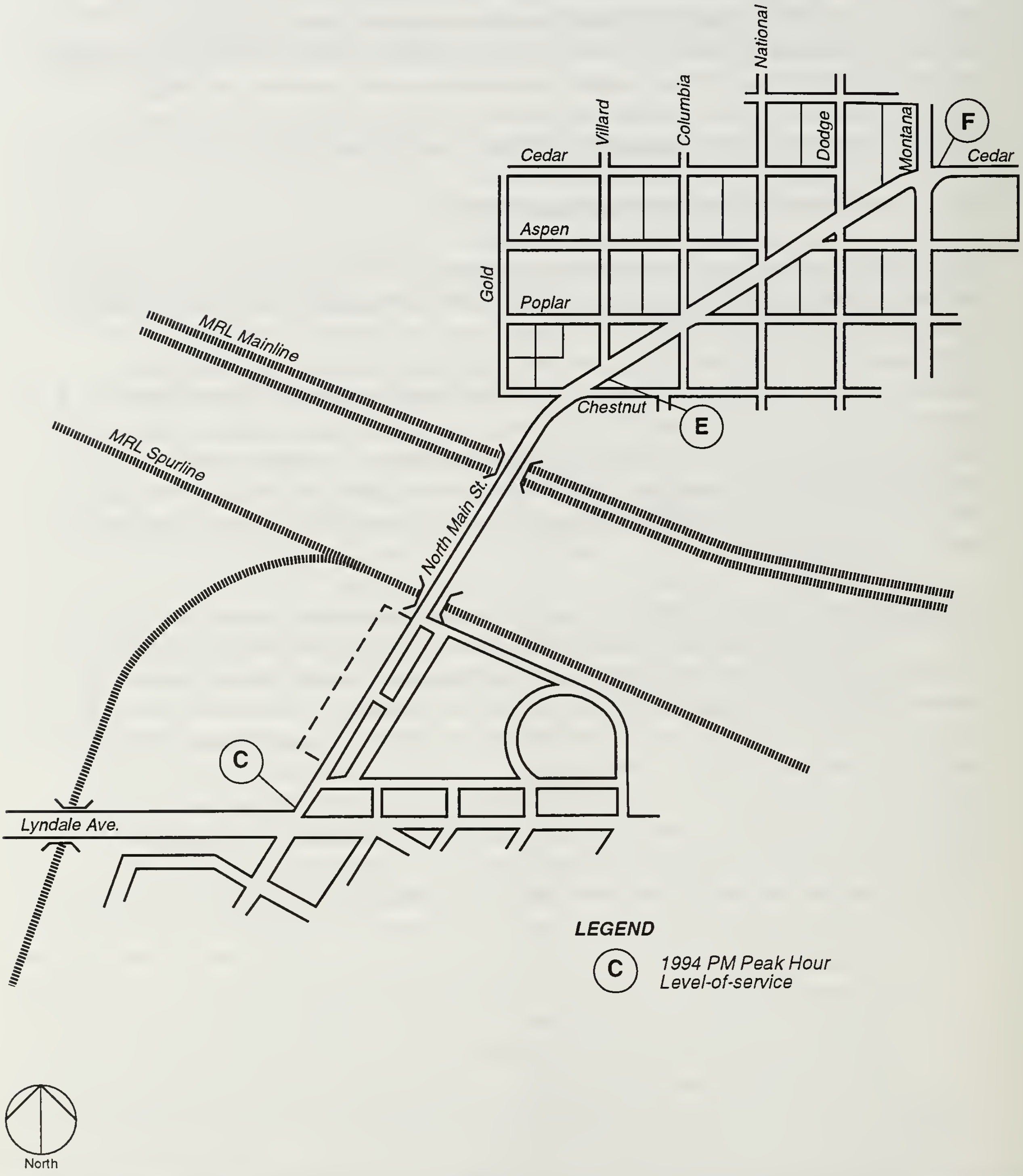


Figure 2-1

1994 PM Peak Hour Operating Conditions

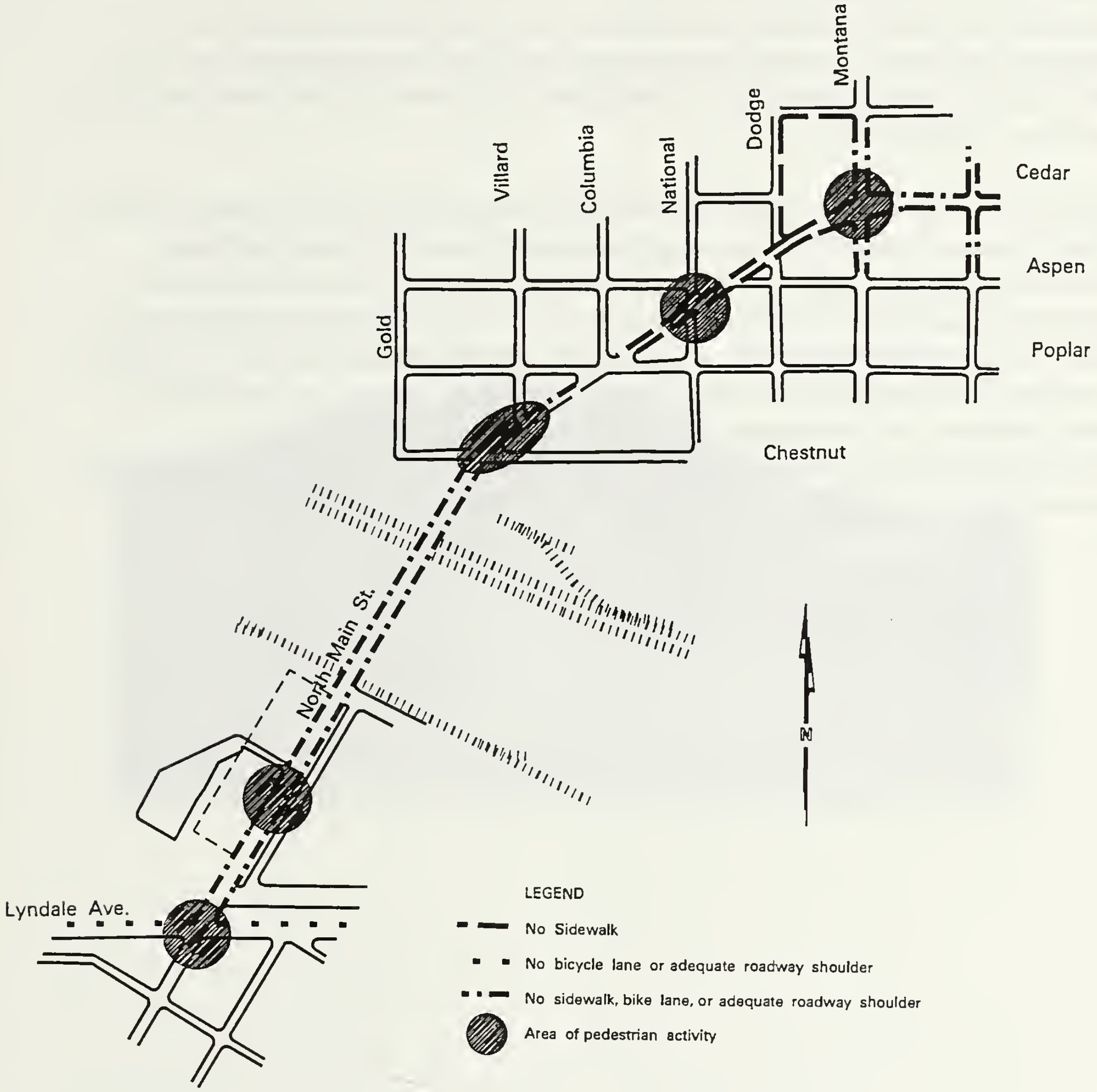
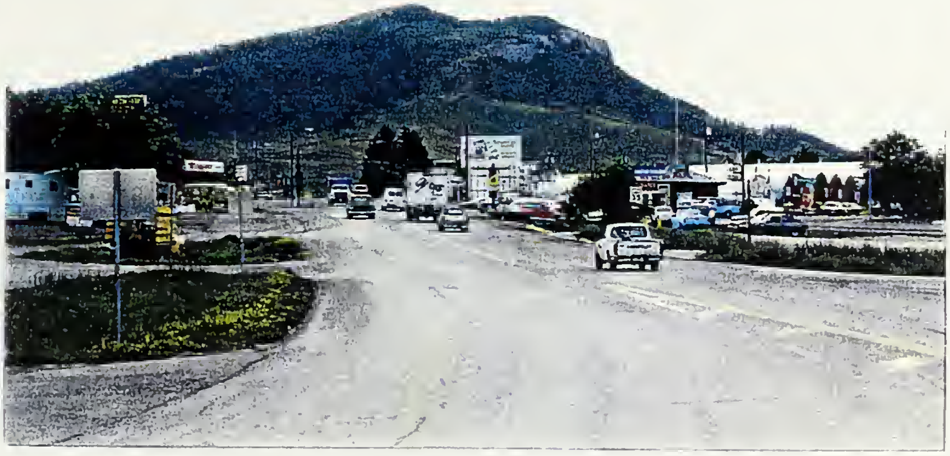

Montana
Dodge
National
Columbia
Villard
Cedar
Aspen
Gold
Poplar
Chestnut
North Main St.
N
Lyndale Ave.
LEGEND
No Sidewalk
No bicycle lane or adequate roadway shoulder
No sidewalk, bike lane, or adequate roadway shoulder
Area of pedestrian activity

Figure 2-2
Existing Pedestian/Bicycle Facility Deficiencies

2.2.3 Population Growth and Economic Development

The Helena urban area supports the majority of employment opportunities for residents of Lewis and Clark County and northern Jefferson County (Figure 1-2). Like many communities in western Montana, Helena is currently experiencing an influx of residential growth that is occurring most rapidly outside of its incorporated limits. In Helena's case, most development is occurring north and northeast of the urban area in the Helena Valley (Figure 1-2).

While growth is expected to continue in outlying areas for the next few decades, the City will likely remain the focus for most employment and commerce-related activities. Commercial activity and locations of employment are becoming less concentrated in downtown Helena and are developing along thoroughfares that connect exurban areas to the City. At the same time, the City is focusing on redeveloping certain downtown areas to maximize their economic potential. North Main Street's function as a major link for regional commuter and commercial traffic will increase as large-scale commercial/industrial sites evolve around the Helena Regional Airport and higher density mixed-use redevelopment continues within the urban core.



North

Figure 2-3
View South of Land Uses on North Main Street

2.3 Purpose and Need Summary

In summary, the primary purpose and need for the proposed project is to:

- Move people and products more efficiently by reducing congestion and improving mobility by providing capacity for existing and projected traffic volumes (Average LOS C for 20 year design life).
- Improve the facilities for other transportation modes, particularly pedestrians and bicyclists.
- Improve the overall safety conditions on North Main Street for pedestrians, bicyclists and motorized vehicles to reduce the number and frequency of accidents by the addition of turn-lanes, improved definition of access and providing adequate capacity.
- Enhance the visual character of North Main Street to provide a gateway into downtown Helena.
- Reconstruction of the deteriorating roadway and bridge structures.

Secondary benefits which are anticipated to occur as a result of improvements to North Main Street are:

- Support to the City of Helena economic and community development.
- Increased use of North Main Street by other modes of transportation, particularly pedestrians and bicyclists.
- Improved pedestrian and bicycle connections to other trails and facilities.
- Decreased air pollution (carbon monoxide) associated with traffic congestion.
- Improved integrity of bridge structures to provide emergency mobility during the event of an earthquake.
- Reduced diversion of traffic to other local streets not intended for arterial through traffic.

3.0 Alternatives Considered

Concepts were developed and evaluated in coordination with the public coordination process. A preliminary screening of these concepts was performed and those concepts that did not meet the purpose and need for the project or involved substantial impacts were screened from further consideration.. Those concepts that were forwarded were used in the development of the alternatives considered for this project.

An alternative was developed and identified as the Preferred Alternative in the 1981 Environmental Impact Statement. This alternative was characterized by the following features:

- Widening to provide four through-travel lanes (two lanes each direction).
- Raised center medians with openings and left-turn lanes at intersections north of the railroad tracks.
- Consolidation and definition of accesses via curb and gutter and driveway aprons.
- Separated walkways and bicycle paths in the areas of Bausch and Memorial Parks.
- A grade-separated bicycle and pedestrian underpass at the location of the southern railroad crossing (MRL spurline).
- Sidewalks on both sides of the street north of the railroad tracks.

3.1 Design Concepts

In the development of the alternatives, a number of design concepts were considered for both roadway and pedestrian and bicycle facilities. These concepts are described as follows and are evaluated in Section 3.2. Concepts that were forwarded beyond the evaluation contained in Section 3.2 were incorporated into alternatives that were considered for this project and are described in Sections 3.3 and 3.4.

3.1.1 Roadway Concepts

- Two-Lane (median) concept. This concept includes two 3.6 meter (11.8 foot) through traffic lanes (one in each direction), 2.4 meter (7.9 foot) shoulders/breakdown bypass lanes, a 5.0 meter (16.4 foot) raised median, 0.6 meter (2.0 foot) shy zones on either side of the median, and left-turn lanes at the intersections.

- Three-Lane (turn-lane) concept. This concept includes two 3.6 meter (11.8 foot) through-traffic lanes (one in each direction), 2.4 meter (7.9 foot) shoulders/breakdown bypass lanes in each direction, and a 5.0 meter (16.4 foot) continuous center turn lane.

- Four-Lane (median) concept. This concept includes four 3.6 meter (11.8 foot) through-traffic lanes with a 5.0 meter (16.4 foot) raised center median with 0.6 meter (2.0 foot) shy zones on either side of the median and left-turn lanes at the intersections. This concept condenses all left-turn movements to the intersections. Left turns into or out of mid-block driveways will not be possible due to the raised median.

- Five-lane (turn-lane) concept. This concept includes four 3.6 meter (11.8 foot) through-traffic lanes with a 5.0 meter (16.4 foot) continuous center turn lane. This concept provides unconstrained accessibility for vehicles since left turns can occur along the entire length of the corridor.

- Combination (median/turn-lane). This concept is a combination of the Four-Lane and Five-Lane concepts. The Four-Lane (median) section is included in the section from Lyndale Avenue to the MRL railroad crossing. The Five-Lane (turn-lane) section is included from the MRL railroad crossing to Montana Avenue.

3.1.2 Pedestrian and Bicycle Facility Concepts

- On-Street Bicycle Lanes and Attached Sidewalks. This concept provides a 1.8 meter (5.9 foot) sidewalk for pedestrians and an additional 1.6 meter (5.3 foot) next to the outside traffic lanes for bicyclists. It provides one-direction use of the bike lane and path where right-of-way widths restrict the amount of separation that can be provided from the traffic lanes. This concept was forwarded and incorporated into the Preferred Alternative described in Section 1.2.

- Detached, Combined Pedestrian and Bicycle Path. This concept includes a 3 meter (9.8 foot) combined bicycle and pedestrian path separated from the roadway by various distances. This concept was most widely accepted by those participating in the public involvement process.

This concept was not forwarded, however, since it presents the following potential safety problems: The pedestrian/bike facility's location would be outside of many drivers' direct view at the multiple intersecting streets and driveways within the segment; This configuration violates drivers expectations at intersecting approaches. The additional width required for this concept also impacts adjacent commercial properties in the north portion of the corridor.

- Attached, Combined Pedestrian and Bicycle Path (both sides). This concept includes a 3 meter (9.8 foot) combined bicycle and pedestrian path immediately adjacent to the back of the roadway curb and gutter on each side of the roadway. This concept was not forwarded because the 3 meter (9.8 foot) width allows for two-directional traffic adjacent to the traffic lanes with bicyclists opposing the direction of adjacent vehicular traffic.

- Combined, Attached Pedestrian and Bicycle Path (one side). This concept includes a 3 meter (9.8 foot) combined bicycle and pedestrian path immediately adjacent to the back of the roadway curb and gutter on one side of the roadway and a 1.8 meter (5.9 foot) attached sidewalk for pedestrians on the opposite side of the roadway. This option minimizes the width of the roadway section and reduces impacts to adjacent properties on the southeast side of the roadway. This concept was not forwarded because of bicyclists opposing the direction of adjacent vehicular traffic lanes, reduced bicycle mobility, and limited connectivity to other bicycle facilities.

3.1.3 Pedestrian Crossing Concepts.

During the public coordination process described in Section 6-1, the configuration of the pedestrian crossing between Bausch and Memorial Parks generated comment. Several concepts were investigated in the development of the design alternative as follows:

- At-Grade Pedestrian Crossing. This concept includes an at-grade crossing that would be constructed in the same location of the existing crossing. Warning signing would be installed and the crossing delineated for improved visibility.

- At-Grade Crossing with Signal. This concept is much the same as the above described concept but also includes a traffic signal with pedestrian activation.

- Underpass. The 1981 EIS recommended that the spurline railroad crossing be reconstructed to include a bicycle and pedestrian path crossing under the roadway. This recommendation is also incorporated into a conceptual bicycle facilities improvement plan map contained in the *Helena Area Transportation Plan - 1993 Update*. Although the spurline bridge is not situated directly between Centennial/Bausch and Memorial Parks, public comments received in the public coordination activities described in Section 6-1, favored reconstructing this grade separation with a lighted underpass for pedestrian and bicyclist use. The likely expansion of recreation space upon the city landfill site provides further justification for this facility improvement.

- Overpass. This concept includes the construction of a pedestrian overpass between Bausch and Memorial Parks. This concept requires ramps as long as 120 meters (393 feet) to achieve the grade separation above the roadway. The ramps and crossing would be constructed to conform to Americans with Disabilities Act requirements.

- Combination Concept. This concept includes both the At-Grade crossing and the Underpass.

3.2 Preliminary Screening Evaluation

3.2.1 Roadway Concept Evaluation

A Preliminary Screening Evaluation was conducted to screen the five roadway concepts described in Section 3.1. This evaluation was used to identify concepts that involved substantial impacts or did not meet the purpose and need for the project to determine which of these should be developed in detail to develop the alternatives described in Sections 3.3 and 3.4. The Preliminary Screening Evaluation is shown in Table 3-1.

Table 3-1

NORTH MAIN STREET

Preliminary Screening Evaluation

○ **Minimal Impact** ◒ **Moderate Impact** ● **Substantial Impact**

	No-Build	Two-Lane (median)	Three-Lane (turn-lane)	Four-Lane (median)*	Five-lane (turn-lane)	Combo (median/turn-lane)*
Congestion (Level of Service)	• Existing corridor/intersection LOS ranges from C to F • Operating conditions will continue to deteriorate as traffic volumes increase • Extended peak period congestion and LOS F for corridor within 5 years. ●	• Will improve to LOS B at opening day but will deteriorate as traffic volumes increase. • Extended peak period congestion and LOS F for corridor estimated by 2008 • Does not meet the Purpose and Need for the project ●	• Will improve to LOS B at opening day but will deteriorate as traffic volumes increase • Extended peak period congestion and LOS F for corridor estimated by 2008 • Does not meet the Purpose and Need for the project (Same as Two-lane median)) ●	• Will improve to LOS A along segments and LOS B at intersections at opening day • LOS B for segments and LOS C for intersections are expected by year 2017. ○	• Will improve to LOS A along segments and LOS B at intersections at opening day • LOS B for segments and LOS C for intersections are expected by year 2017 (Same as Four-Lane (median)) ○	• Will improve to LOS A along segments and LOS B at intersections at opening day • LOS B for segments and LOS C for intersections are expected by year 2017 (Same as Four-Lane (median)) ○
Operations	• Traffic diversion to alternate routes such as Benton Ave. and other streets through residential areas will increase as congestion on North Main increases ●	• As congestion increases on North Main, traffic will likely divert to alternate routes such as Benton Ave similar to No-Build • Does not meet the Purpose and Need for the project. ●	• As congestion increases on North Main, traffic will likely divert to alternate routes such as Benton Ave similar to No-Build • Does not meet the Purpose and Need for the project. (Same as Two-Lane (median)) ●	• Substantial improvement in operating conditions • Will relieve overflow traffic on alternate routes. ○	• Substantial improvement in operating conditions • Will relieve overflow traffic on alternate routes • Turning vehicles will cross traffic mid-block (Same as Four-Lane (median)) ◒	• Substantial improvement in operating conditions • Will relieve overflow traffic on alternate routes • Turning vehicles will cross traffic mid-block. (Same as Four-Lane (median)) ◒

* **Advisory Committee Recommended Alternatives**

Table 3-1

NORTH MAIN STREET

Preliminary Screening Evaluation

○ **Minimal Impact** ◒ **Moderate Impact** ● **Substantial Impact**

	No-Build	Two-Lane (median)	Three-Lane (turn-lane)	Four-Lane (median)*	Five-lane (turn-lane)	Combo (median/turn-lane)*
Safety	• Number of accidents will likely increase as traffic increases without additional capacity and channelization. • Increased congestion will result in added response time for emergency vehicles. ●	• Safety conditions will improve to some degree with regard to storage of turning vehicles, provision of ped /bike parallel facilities, and access control measures at opening day • Safety will continue to deteriorate as congestion and driver frustration increases • Increased congestion will result in added response time for emergency vehicles. • Does not meet the Purpose and Need for the project. ●	• Safety conditions will improve with regard to storage of turning vehicles, provision of ped /bike facilities, and access control measures at opening day • Safety will continue to deteriorate as congestion and driver frustration increase. • Risk of head-on collisions will increase as traffic volumes increase. • Increased congestion will result in added response time for emergency vehicles • Does not meet the Purpose and Need for the project. ●	• Safety conditions will improve with storage of turning vehicles, provision of ped /bike facilities, and access control measures. • Average vehicle speeds may increase at opening day due to added lane capacity, but will be slowed to some extent by the addition of a traffic signal at Villard ○	• Safety conditions will improve with storage of turning vehicles, provision of ped./bike facilities, and access control measures. • Average vehicle speeds may increase at opening day due to added lane capacity, but will be slowed to some extent by the addition of a traffic signal at Villard • Congestion and risk of head-on collisions will increase as traffic reaches 20,000-30,000 ADT ◒	• Varies • Same as Four-Lane (median) for segment south of railroad crossing. • Same as Five-Lane (turn-lane) for segment north of railroad crossing. • Two-way left-turn lane is acceptable for projected traffic north of railroad crossing (19,000 ADT). ○
TDM	• Increased travel demand will require TDM measures to drastically reduce that demand by an unreastically high portion of total trips expected by 2017. • Absence of safe, connective ped /bike facilities will discourage increased use of facility by peds /bikes ●	• Increased travel demand will require TDM measures to drastically reduce that demand by an unreastically high portion (30-40%) of total trips expected by 2017 • Provision of safe, connective ped /bike facilities will encourage increased use of facility by peds/bikes • Median provides for better ped /bike movement. ○	• Increased travel demand will require TDM measures to drastically reduce that demand by an unreastically high portion (30-40%) of total trips expected by 2017. • Provision of safe, connective ped./bike facilities will encourage increased use of facility by peds./bikes (Same as Two-lane (median)) ○	• Additional lanes will increase the capacity to handle more vehicles. • Provision of safe, connective will encourage increased use of facility by peds /bikes • Median provides for better ped /bike movement. ○	• Additional lanes will increase capacity to handle more vehicles. • Provision of safe, connective ped/bike facilities will encourage increased use of facility by peds./bikes. • Width of street adds to difficulties for pedestrians crossing the street ◒	• Additional lanes will increase capacity to handle more vehicles. • Provision of safe, connective ped/bike facilities will encourage increased use of facility by peds./bikes. • Width of street adds to difficulties for pedestrians crossing the street. ◒

* **Advisory Committee Recommended Alternatives**

Table 3-1

NORTH MAIN STREET
Preliminary Screening Evaluation

○ **Minimal Impact** ◒ **Moderate Impact** ● **Substantial Impact**

	No-Build	Two-Lane (median)	Three-Lane (turn-lane)	Four-Lane (median)*	Five-lane (turn-lane)	Combo (median/turn-lane)*
Parking	• No effect upon existing parking areas ○	• Impacts parking for 6 adjacent properties ○	• Impacts parking for 6 adjacent properties. (Same as Two-lane (median)) ○	• Impacts parking for 11 adjacent properties ○	• Impacts parking for 11 adjacent properties (Same as Four-Lane (median)) ○	• Impacts parking for 11 adjacent properties (Same as Four-Lane (median)) ○
Land Use	• Deterioration of driving conditions on N Main Street will route increasing traffic through alternate routes such as the Custer-Benton Ave corridor and may prompt further commercial strip development along alternative routes such as N Montana and Custer Aves ●	• Future congestion on N Main Street will route increasing traffic through alternate routes such as the Custer-Benton Ave corridor and may promote further commercial strip development along alternative routes such as N Montana/Custer Aves • Concentrates left-turning movements to intersections and results in more U-turn movements • Limited access would have a moderate impact on existing land use ●	• Future congestion on N Main Street will route increasing traffic through alternate routes such as the Custer-Benton Ave corridor and may promote further commercial strip development along alternative routes such as N Montana/Custer Aves ◒	• Concentrates left-turning movements to intersections and results in more U-turn movements • Left-turn access must make use of existing street network • Limited access would have a moderate impact on existing land use ◒	• Unrestricted left-turn access may promote further commercial strip development ○	• Concentrates left-turning movements to intersections and creates more U-turns between Lyndale and the MRL mainline railroad crossing • Unrestricted left-turn access may promote further strip development between the MRL mainline railroad crossing and Montana • Roadway sections reflect existing adjacent land uses along corridor. ○

* Advisory Committee Recommended Alternatives

Table 3-1

NORTH MAIN STREET
Preliminary Screening Evaluation

○ **Minimal Impact** ◒ **Moderate Impact** ● **Substantial Impact**

	No-Build	Two-Lane (median)	Three-Lane (turn-lane)	Four-Lane (median)*	Five-lane (turn-lane)	Combo (median/turn-lane)*
Social	• Increased congestion will exacerbatre division between neighborhoods and community services • Increasing traffic congestion will elevate emergency vehicle response times ●	• Crossing treatments for peds./bikes, access control measures, and intersection improvements will improve access between neighborhoods and commercial areas and between parks • Future increase in traffic congestion will elevate emergency vehicle response times. ◒	• Crossing treatments for peds./bikes, access control measures, and intersection improvements will improve access between neighborhoods and commercial areas and between parks. • Future increase in traffic congestion will elevate emergency vehicle response times. (Same as Two-Lane (median)) ◒	• Crossing treatments for peds./bikes, access control measures, and intersection improvements will improve access between neighborhoods and commercial areas and between parks. • Wider total road width increases divisions between neighborhoods ◒	• Crossing treatments for peds./bikes, access control measures, and intersection improvements will improve access between neighborhoods and commercial areas and between parks. • Wider total road width increases divisions between neighborhoods. (Same as Four-Lane (median)) ◒	• Crossing treatments for peds./bikes, access control measures, and intersection improvements will improve access between neighborhoods and commercial areas and between parks. • Wider total road width increases divisions between neighborhoods. (Same as Four-Lane (median)) ◒
Economic	• Increased congestion and deteriorating operating conditions may decrease new investment in commercial land uses along N Main Street and to existing businesses in the CBD • Deterioration of adjacent ingress/egress conditions may discourage reinvestment in adjacent properties. ●	• Improvement of adjacent ingress/egress conditions along with visual improvements may encourage reinvestment in adjacent properties • Improvements could enhance the property values of adjacent properties. • Increased future congestion may decrease new investment in commercial land uses along N Main Street and to existing businesses in the CBD ●	• Improvement of adjacent ingress/egress conditions along with visual improvements may encourage reinvestment in adjacent properties. • Improvements could enhance the property values of adjacent properties. • Increased future congestion may decrease new investment in commercial land uses along N Main Street and to existing businesses in the CBD (Same as Two-Lane (median)) ●	• Improvement of adjacent ingress/egress conditions along with visual improvements will encourage reinvestment in adjacent properties. • Improvements could enhance the property values of adjacent properties, and help to sustain existing businesses and encourage new investment in the CBD • Improvements may divert traffic away from businesses on other routes ◒	• Improvement of adjacent ingress/egress conditions along with visual improvements will encourage reinvestment in adjacent properties. • Improvements could enhance the property values of adjacent properties, and help to sustain existing businesses and encourage new investment in the CBD • Improvements may divert traffic away from businesses on other routes (Same as Four-Lane (median)) ◒	• Improvement of adjacent ingress/egress conditions along with visual improvements will encourage reinvestment in adjacent properties • Improvements could enhance the property values of adjacent properties, and help to sustain existing businesses and encourage new investment in the CBD. • Improvements may divert traffic away from businesses on other routes. • Combo concept addresses both business and aesthetic interests. ○

* **Advisory Committee Recommended Alternatives**

Table 3-1

NORTH MAIN STREET

Preliminary Screening Evaluation

○ **Minimal Impact** ◒ **Moderate Impact** ● **Substantial Impact**

	No-Build	Two-Lane (median)	Three-Lane (turn-lane)	Four-Lane (median)*	Five-lane (turn-lane)	Combo (median/turn-lane)*
Right-of-Way	• No impacts ○	• Requires right-of-way from MRL for construction of ped /bike facilities. • Requires additional right-of-way at both Montana and Lyndale intersections ○	• Requires right-of-way from MRL for construction of ped /bike facilities. • Requires additional right-of-way at both Montana and Lyndale intersections (Same at Two-Lane (median). ○	• Requires right-of-way from 33 adjacent properties ◒	• Requires right-of-way from 33 adjacent properties (Same as Four-lane (median). ◒	• Requires right-of-way from 33 adjacent properties (Same as Four-lane (median). ◒
Peds/Bikes	• Deteriorating traffic conditions and no safe ped /bike facilities will continue to discourage peds and bikes from using facility • Increased congestion will reduce "gaps" in traffic for pedestrians crossing N Main. • No connectivity provided to future ped /bike facilities ●	• Provision of safe, connective ped /bike facilities will encourage increased use of facility by peds and bikes. • Increased congestion will reduce "gaps" in traffic for pedestrians crossing N Main • Median will provide a "refuge" area for crossing pedestrians ◒	• Provision of safe, connective ped /bike facilities will encourage increased use of facility by peds and bikes • Increased congestion will reduce "gaps" in traffic for pedestrians crossing N Main ◒	• Provision of safe, connective ped /bike facilities will encourage increased use of facility by peds and bikes • Increased congestion will reduce "gaps" in traffic for pedestrians crossing N Main • Median will provide a "refuge" area for crossing pedestrians ○	• Same as Four-Lane (median) except no "refuge" area is provided • Provision of safe, connective ped /bike facilities will encourage increased use of facility by peds and bikes • Increased congestion will reduce "gaps" in traffic for pedestrians crossing N Main. ◒	• The median will be located between the MRL mainline railroad crossing and Lyndale Same as Four-Lane (median) in this area • Five-lane design between, Montana and the MRL mainline railroad crossing does not provide a "refuge" area Same as Five-Lane (turn-lane) in this area ◒

Note: These costs are conceptual in nature and are intended for comparing major cost differences between the alternatives. Minor items that occur in each of these alternatives have not been included.

* Advisory Committee Recommended Alternatives

Table 3-1

NORTH MAIN STREET
Preliminary Screening Evaluation

○ **Minimal Impact** ◒ **Moderate Impact** ● **Substantial Impact**

	No-Build	Two-Lane (median)	Three-Lane (turn-lane)	Four-Lane (median)*	Five-lane (turn-lane)	Combo (median/turn-lane)*
Parks & Recreation	• Increasing traffic volumes and congestion, deteriorating traffic operating conditions, and absence of safe ped /bike facilities in the area of Bausch and Memorial Parks will create difficulties with access to the parks, continuing ped /bike conflicts, and safety problems ●	• Improved operating conditions and provision of safe, connective ped /bike facilities in the areas of parks will alleviate existing safety, parking, and access problems in the short term • Provision of a ped /bike crossing will provide connectivity to future recreation trails and park space. • Median allows for landscape treatment between parks ○	• Improved operating conditions and provision of safe, connective ped /bike facilities in the areas of parks will alleviate existing safety, parking, and access problems in the short term • Provision of a ped /bike crossing will provide connectivity to future recreation trails and park space ◒	• Improved operating conditions and provision of safe, connective ped./bike facilities in the areas of parks will alleviate existing safety, parking, and access problems in the short term. • Provision of a ped /bike crossing will provide connectivity to future recreation trails and park space. • Loss of mature trees • Median allows for landscape treatment between parks. ◒	• Improved operating conditions and provision of safe, connective ped./bike facilities in the areas of parks will alleviate existing safety, parking, and access problems in the short term. • Provision of a ped /bike crossing will provide connectivity to future recreation trails and park space. • Loss of mature trees. ◒	• Improved operating conditions and provision of safe, connective ped./bike facilities in the areas of parks will alleviate existing safety, parking, and access problems in the short term. • Provision of a ped /bike crossing will provide connectivity to future recreation trails and park space. • Loss of mature trees. • Median allows for landscape treatment between parks. (Same as Four-Lane (median). ◒
Air Quality	• Will not cause any impacts which exceed federal standards for CO or PM_{10}. ○	• Will not cause any impacts which exceed federal standards for CO or PM_{10}. (Same as No-Build) ○	• Will not cause any impacts which exceed federal standards for CO or PM_{10}. (Same as No-Build) ○	• Will not cause any impacts which exceed federal standards for CO or PM_{10}. (Same as No-Build) ○	• Will not cause any impacts which exceed federal standards for CO or PM_{10}. (Same as No-Build) ○	• Will not cause any impacts which exceed federal standards for CO or PM_{10}. (Same as No-Build) ○

* **Advisory Committee Recommended Alternatives**

Table 3-1

NORTH MAIN STREET
Preliminary Screening Evaluation

○ **Minimal Impact** ◒ **Moderate Impact** ● **Substantial Impact**

	No-Build	Two-Lane (median)	Three-Lane (turn-lane)	Four-Lane (median)*	Five-lane (turn-lane)	Combo (median/turn-lane)*
Noise	• Traffic noise increases will be minimal ○	• Traffic noise increases will be minimal. ○	• Traffic noise increases will be minimal. ○	• Traffic noise increases will be minimal ○	• Traffic noise increases will be minimal ○	• Traffic noise increases will be minimal. ○
Cultural (Historical)	• No effect ○	• No effect ○	• No effect. ○	• No adverse effect on the National Guard Armory site ○	• No adverse effect on the National Guard Armory site (Same as Four-Lane (median)) ○	• No adverse effect on the National Guard Armory site. (Same as Four-lane (median)) ○
Haz. Materials	• No impacts ○	• No impacts to hazardous waste sites. ○	• No impacts to hazardous waste sites. ○	• No impacts to hazardous waste sites ○	• No impacts to hazardous waste sites ○	• No impacts to hazardous waste sites ○

* Advisory Committee Recommended Alternatives

Table 3-1

NORTH MAIN STREET

Preliminary Screening Evaluation

○ **Minimal Impact** ◒ **Moderate Impact** ● **Substantial Impact**

	No-Build	Two-Lane (median)	Three-Lane (turn-lane)	Four-Lane (median)*	Five-lane (turn-lane)	Combo (median/turn-lane)*
Visual	• Unchanged from existing character ●	• Addition of raised median with aesthetic treatment. • Expanse of pavement "broken-up" by median. • Access that is more organized • Additional structure (new bridge). • Relocation of structures (billboards, utility lines). • Removal of several mature trees ○	• Expansion of width of pavement. • Access that is more organized. • Addition of roadside landscaping • Additional structure (new bridge). • Relocation of structures (billboards, utility lines). • Removal of several mature trees ●	• Addition of raised median with aesthetic treatment. • Expanse of pavement "broken-up" by median. • Access that is more organized • Addition of landscaping on roadside. • Additional structure (new bridge). • Relocation of structures (billboards, utility lines). • Removal of several mature trees. ◒	• Expansion of width of pavement. • Access that is more organized. • Addition of landscaping. • Additional structure (new bridge). • Relocation of structures (billboards, utility lines). • Removal of several mature trees. ●	• Same as Four-Lane (median) for segment south of MRL mainline railroad crossing • Same as Five-lane (turn-lane) for segment north of MRL mainline railroad crossing • Roadway cross-section reflects existing adjacent land uses along corridor. ◒
Construction	• No impacts ○	• Disruption to traffic during construction • Temporary noise, dust impacts ◒	• Disruption to traffic during construction • Temporary noise, dust impacts. (Same as Two-Lane (median)) ◒	• Disruption to traffic during construction. • Temporary noise, dust impacts (Same as Two-Lane median)) ◒	• Disruption to traffic during construction. • Temporary noise, dust impacts. (Same as Two-Lane (median)) ◒	• Disruption to traffic during construction. • Temporary noise, dust impacts (Same as Two-Lane (median)) ◒
Cost (see note)	• Not applicable ○	• $3.5 Million ◒	• $3.3 Million ◒	• $4.4 Million ◒	• $4.1 Million ◒	• $4.3 Million ◒

Note: These costs are conceptual in nature and are intended for comparing major cost differences between the alternatives. Minor items that occur in each of these alternatives have not been included.

*** Advisory Committee Recommended Alternatives**

The Preliminary Screening Evaluation contained in Table 3-1 resulted in the following roadway concepts being screened from further consideration:

- ☐ Two-Lane (median). This concept was screened from further consideration for the following reasons:
  - Does not meet the Purpose and Need. This alternative does not provide capacity for the 20-year projected traffic volumes.
  - Traffic does not operate well within the Helena transportation system. Traffic would be expected to divert to alternative routes with more residential character due to congestion on North Main Street.
  - Safety will decrease as congestion increases and capacity is exceeded.
  - Over-capacity traffic conditions will impair access to adjacent businesses and properties.

- ☐ Three-Lane (turn-lane). This concept was screened from further consideration for the following reasons:
  - Does not meet the Purpose and Need. This alternative does not provide capacity for the 20-year projected traffic volumes.
  - Traffic does not operate well within the Helena transportation system. Traffic would be expected to divert to alternative routes with more residential character due to congestion on North Main Street.
  - Safety will decrease as congestion increases and capacity is exceeded.
  - Over-capacity traffic conditions will impair access to adjacent businesses and properties.

The Five-Lane (turn-lane) roadway concept was incorporated into the Turn-Lane Alternative described in Section 3.3. The combination (median/turn-lane) was incorporated into the Combination Alternative also discussed in Section 3.3. The Four-Lane (median) concept was incorporated into the Preferred Alternative described in Section 1.2.

3.2.2 Pedestrian / Bicycle

The concepts for Pedestrian and Bicycle facilities were evaluated and recommendations were developed. The pedestrian and bicycle facilities included in this project not only need to address issues and areas of concern but also address the needs of the different types of users. During the public coordination it was expressed that facilities for pedestrians and bicycle users of the corridor should have paths as wide as possible with as much separation between the travel lanes and the path. Generally accepted design practices indicate that for a two-directional bicycle path the desirable width is 3 meters (9.8 ft.). Of particular concern is that a two-way directional bicycle path would allow bicyclists to be traveling at a direction opposing the adjacent traffic. The recommendations, therefore, have been developed to encourage one-directional use of the facilities in those areas where the bike and pedestrian facilities are adjacent to the traffic.

The recommendations for the bicycle and pedestrian facilities have been shown for both 4-lane (median) and 5-lane (turn-lane) concepts. These recommendations include:

- A fully-separated 3 meter (9.8 ft.) wide pedestrian and bicycle path meandering through Centennial/Bausch Park. A full width path can be used here since there is sufficient distance from the traffic lanes to the path to allow a two-directional path to be used and where numerous road approaches are present. Use of the existing frontage/parking area adjacent to Memorial Park and the existing walks with improvements of cross-walks across the frontage/parking area. An on-street bike lane has not been recommended to minimize roadway width and impacts between the two parks.

- The bridge over Montana Rail Link includes an on-street 1.6 meter (5.2 foot) bike lane adjacent to the traffic lanes and a 1.8 meter (5.9 foot) path at the curb line. These facilities are 'directional' to minimize width requirements and to conform to normal design practice.

- North of the Montana Rail Link bridge the design includes 1.6 meter (5.2 foot) on-street bike lanes outside of the traffic lanes, a 1.8 meter (5.9 foot) boulevard, and a separated 1.5 meter (4.9 foot) path on either side of the street. The 1.6 meter (5.2 foot) width provides a 1.2 meter (4 foot) width between the traffic lane and the lip of gutter. Bicycle safe grates should be used on all inlets. These facilities are intended to be 'directional' since there is limited width to separate the pedestrian and bicycle facilities from the traffic. In areas of limited right-of-way or at constructions the boulevard may be reduced in width or eliminated for short distances.

Bike lanes should be striped to delineate the separation between the vehicular and bicycle traffic. The pavement marking should end, however, in advance of intersections to minimize confusion with turning movements. It should be noted that the pavement width must transition between the Mainline Railroad and the Centennial/Bausch and Memorial Parks where the bicycle facilities transition from on-street to off-street. A curb cut must be provided to allow bicyclists to move from the bike lane to the separated path.

3.2.3 Pedestrian / Bicycle Crossing

During the public coordination, the pedestrian crossing between Bausch and Memorial Parks was an issue that generated much public interest and it is clear that this crossing is a source of concern for the public. A Preliminary Screening Evaluation was conducted to screen the five pedestrian crossing concepts described in Section 3.1. This evaluation was used to determine which of the concepts should be incorporated into the recommended preferred alternative. The Bicycle/Pedestrian Crossing Evaluation is shown in Table 3-2.

Table 3-2

NORTH MAIN STREET
Bicycle/Pedestrian Crossing Evaluation

○ Minimal Impact ◒ Moderate Impact ● Substantial Impact

	At-Grade	At-Grade with Signal	Underpass	Overpass	Underpass/At-Grade Combo *
Visual	• Crosswalk markings • Overhead warning signs • Potential use of patterned or colored concrete to delineate crosswalk. ○	• Crosswalk markings • Overhead pedestrian-actuated signal ○	• Grade-separated underpass adjacent to MRL spurline • Retaining wall, railing, additional path and crosswalks in Memorial Park • Removal of several trees ○	• Grade-separated overpass structure located at the Bausch Park entrance • 150' span, 18' vertical clearance, 390' ADA accessible ramps • Removal of numerous trees • Realignment of existing trail in Bausch Park ●	• Grade-separated underpass adjacent to MRL spurline • Retaining wall, railing, additional path and crosswalks in memorial park • Crosswalk markings at YMCA entrance • Removal of several trees • Overhead warning signs may not be required ○
Safety	• Pedestrians/Bicyclists cross multiple lanes of traffic • Dependent on design speed, number of lanes, and median type Note. Raised median concept provides "refuge" area. ◒	• Pedestrians/Bicyclists cross multiple lanes of traffic with signal • Signal may cause additional vehicle accidents ◒	• Pedestrians/Bicyclists separated from vehicles • Underpass creates place to hide ○	• Pedestrians/Bicyclists separated from vehicles ○	• Pedestrians/Bicyclists choose safest crossing ○

* Advisory Committee Recommended Alternative

Table 3-2

NORTH MAIN STREET
Bicycle/Pedestrian Crossing Evaluation

○ **Minimal Impact** ◒ **Moderate Impact** ● **Substantial Impact**

	At-Grade	At-Grade with Signal	Underpass	Overpass	Underpass/At-Grade Combo *
Opera-tions	• No out-of-direction travel • Vehicles yield to crossing pedestrians/bicyclists • Pedestrians/bicyclists wait for gaps in traffic or for vehicles to yield ◒	• No out-of-direction travel • Pedestrians cross with signal • **Does not meet signal warrants at this time** ●	• Out-of-direction travel may discourage use • Connects to other regional trail systems ◒	• Long ramps create out-of-direction travel which may discourage use ◒	• Pedestrians/Bicycles choose most efficient crossing: Underpass during heavy traffic periods; At-Grade during light periods ○
Parks	• No additional area used by paths is required ○	• No additional area used by paths is required ○	• Additional area for paths required at spurline and in Memorial Park ○	• Substantial area for paths required from Bausch & Memorial Parks ●	• Additional area for paths required at spurline and in Memorial Park ○
Cost	**$25,000 - $30,000** ○	**$30,000** ○	**$60,000 - $70,000** ◒	**$700,000 - $1,200,000** ●	**$70,000** ◒

* Advisory Committee Recommended Alternative

The evaluation contained in Table 3-2 resulted in the following concepts being screened from further consideration:

- ☐ At-Grade Crossing. This concept (independent of an underpass) was screened from further consideration since it does not completely address safety concerns raised during the public coordination process.

- ☐ At-Grade Crossing with Signal. This concept was screened from further consideration since pedestrian crossing volumes are considerably lower than those volumes required to meet traffic signal warrants as established by the Manual on Uniform Traffic Control Devices.

- ☐ Underpass. This concept (independent of an At-Grade crossing) was screened from further consideration primarily due to the out-of-direction travel required to use the crossing. The concern was that not every pedestrian would use the underpass and would instead cross North Main Street at random locations.

- ☐ Overpass. This concept was screened from further consideration for the following reasons:
  - The overpass results in substantial out-of-direction travel.
  - The large structure and ramps would have a substantial visual impact.
  - The length of ramps required to access the overpass would require substantial space within both Centennial/Bausch and Memorial Parks.
  - The cost is excessive.
  - Pedestrians may not use it due to the out of direction travel.

3.3 Alternatives Considered But Not Advanced

Concepts that were forwarded from Section 3.2 were incorporated into alternatives. The following alternatives were considered but not advanced for further consideration in the EA:

3.3.1 Turn-Lane Alternative

This alternative includes four 3.6 meter (11.8 foot) through-traffic lanes (two in each direction) with a 5 meter (16.4 foot) flush, continuous, two-way left turn lane for the length of the project. Off-street, combination pedestrian/bicycle facilities are included from Lyndale Avenue to the MRL spurline crossing. On-street bicycle lanes are included between the MRL spurline crossing to Montana Avenue. Off-street pedestrian walks are included between the MRL spurline and Montana Avenue and are separated by a 1.8 meter (5.9 foot) boulevard strip.

This alternative was not forwarded for the following reasons:

- Lack of public support during the public coordination process described in Section 6-1.
- The continuous two-way left-turn lane does not provide a refuge area in the middle of the street for pedestrians crossing North Main Street.
- The presence of a uniform grid street system allows full access to side streets. This reduces the need for full access (right-in/right-out and left-in/left-out) from North Main Street.
- There has been public comment that the presence of a two-way left-turn lane will limit the visual quality of the corridor.
- As traffic volumes in excess of 30,000 vehicles per day congestion will increase as a result of undefined left-turn movement. The traffic projections for the twenty-year design horizon are below this 30,000 vpd figure but are expected to approach it beyond the year 2017.

3.3.2 Combination Alternative.

This alternative includes four 3.6 meter (11.8 foot) through-traffic lanes (two in each direction) with a raised 5 meter (16.4 foot) median with 0.6 meter (2.0 foot) shy zones between the curb and the edge of lane. The raised median is included for the segment from Lyndale Avenue to the Chestnut (west) intersection. Left-turn lanes are provided at intersections. In the segment from the Chestnut (west) intersection to Montana Avenue, the alternative includes a 5 meter (16.4 foot) two-way left-turn lane instead of the raised median.

Off-street, combination pedestrian/bicycle facilities are included from Lyndale Avenue to the MRL spurline crossing. On-street bicycle lanes are included between the MRL spurline crossing to Montana Avenue. Off-street pedestrian walks are included between the MRL spurline and Montana Avenue and are separated by a 1.8 meter (5.9 foot) boulevard strip.

This alternative was not forwarded for the following reasons:

- The continuous two-way left-turn lane does not provide a refuge area in the middle of the street for pedestrians crossing North Main Street.
- The presence of a uniform grid street system allows full access to side streets. This reduces the need for full access (right-in/right-out and left-in/left-out) from North Main Street.
- There has been public comment that the presence of a two-way left-turn lane would limit the visual quality of the corridor.
- As traffic volumes in excess of 30,000 vehicles per day congestion will increase as a result of undefined left-turn movement. The traffic projections for the twenty-year design horizon are below this 30,000 vpd figure but are expected to approach it beyond the year 2017.

3.4 Alternatives Advanced

The alternative identified as the Preferred Alternative is described in Section 1.2. It was developed from the Four-Lane (median) roadway concept and the Pedestrian/Bicycle concepts forwarded in Section 3.2. Existing conditions, impacts and mitigation measures for the Preferred Alternative and the No-Build Alternative are fully analyzed in Section 4.0.

4.0 Affected Environment and Environmental Consequences

This chapter provides a description of existing conditions and the impacts and mitigation measures associated with the No-Build and the Preferred Alternative described in Section 1.2.

4.1 Transportation

4.1.1 Introduction

Improvements to this segment of North Main street were identified as a committed project in the *Helena Transportation Plan 1981 Update*. The project had not been implemented by the time of the *Helena Transportation Plan 1993 Update* was completed. It was recommended as an Improvement to the Major Street Network and a committed project in the 1993 Update. Of the four projects that were identified as committed improvements in the 1981 Update, this segment of North Main Street is the only recommendation that has not been implemented.

4.1.2 Existing Conditions

North Main Street between Lyndale Avenue and Montana Avenue is currently a two-lane, two way facility. It provides a major link between the north and south areas of Helena since it is one of three grade-separated crossings of the Montana Rail Link (MRL) mainline tracks that bisect the city and is the only grade-separated crossing of the MRL in the central area of Helena. The only other two grade-separated crossings are located on I-15, 1.89 kilometers (1.17 miles) to the east and on Henderson Street, 2.04 kilometers (1.27 miles) to the west of the corridor. North Main Street is the only north-south grade-separated railroad crossing that is classified in the *Helena Transportation Plan 1993 Update* as a principal arterial.

The roadway currently experiences congestion problems along the length of the project due to the following factors:

- Lack of adequate capacity during peak hours.
- Lack of channelization for the storage of turning vehicles.
- No definition of access points.

Additional turning movement channelization occurs only at the two signalized intersections at each end of the corridor. A southbound right-turn lane and a southbound left-turn lane are present at the North Main/Lyndale intersection. A northbound left-turn lane and a northbound right-turn lane are present at the North Main/Montana intersection. Since turn lanes are not present at any of the intermediate intersections or driveways within the corridor, traffic delays and congestion occur as through traffic is impeded by vehicles waiting to turn left from the lane.

4.1.2.1 Existing Traffic Volumes

The historic traffic volume growth rate can be compared to future projected growth on the area roadways. Future traffic projections are based on the Helena traffic forecast model developed for the *Helena Transportation Plan 1993 Update* and revised by MDT. This model predicts travel patterns considering projected land use, population growth, economic characteristics, and the existing and future transportation network.

Traffic has been increasing on North Main Street at an average rate of two percent over the past seven years. Traffic has also been increasing on other roadways in the area surrounding the corridor.

Existing traffic volumes are shown on Figure 4-1. AM and PM peak hour turning movement counts were conducted at the intersections of North Main Street and Lyndale Avenue, North Main Street and Villard Avenue, and North Main Street and Montana Avenue. These volumes are shown on Figures 4-2 through 4-4.

The AM and PM peak hour volumes generally represent seven to eight and nine to ten percent of the daily traffic volume along North Main Street respectively. Analysis of the directional distribution of peak hour traffic flow indicates that AM traffic is 60 to 65 percent southbound and 40 to 35 percent northbound, while PM traffic is generally 45 percent southbound and 55 percent northbound.

4.1.2.2 Existing Intersection Level of Service

An analysis was conducted to determine how existing traffic now operates on the existing road network. The descriptor of this traffic operations analysis are called Levels-of-Service (LOS). LOS is a qualitative measure describing operational conditions within the traffic stream. LOS defines conditions in terms of speed and travel time, freedom to maneuver, traffic interruptions, comfort, convenience and safety.

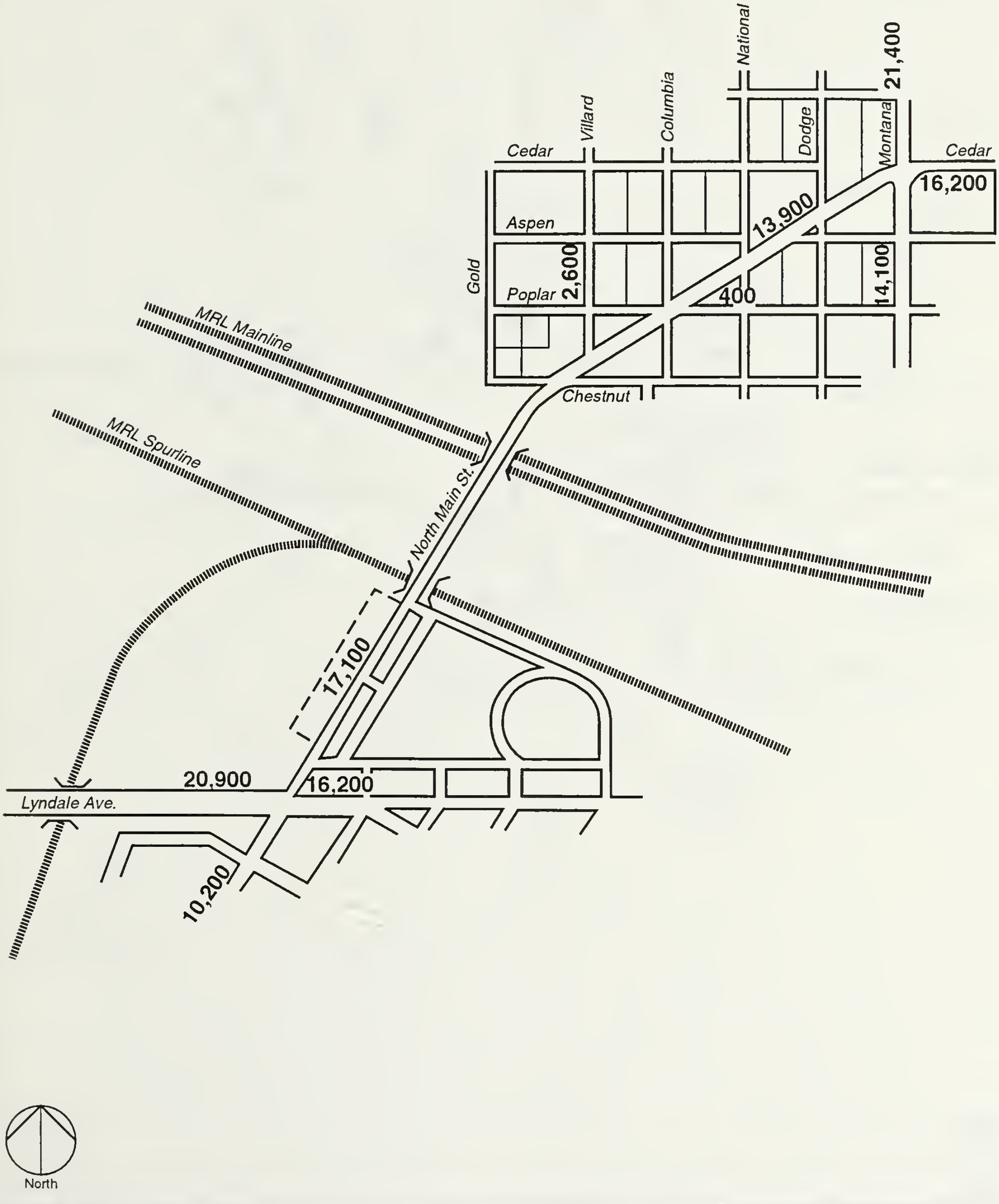


Figure 4-1
1994 Average Daily Traffic Volumes

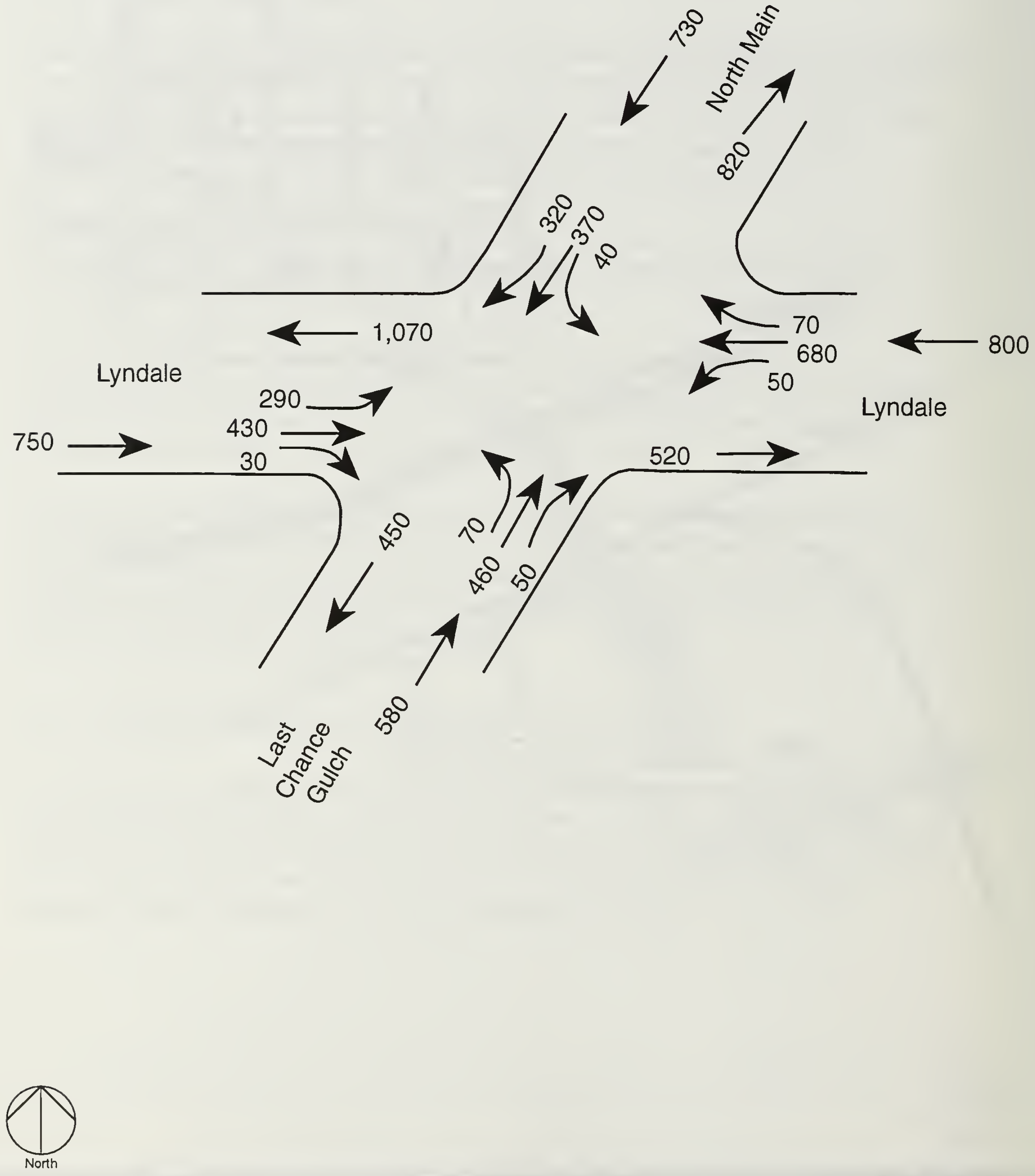


Figure 4-2

1994 PM Peak Hour Turning Movements
Lyndale/Last Chance Gulch/North Main Intersection

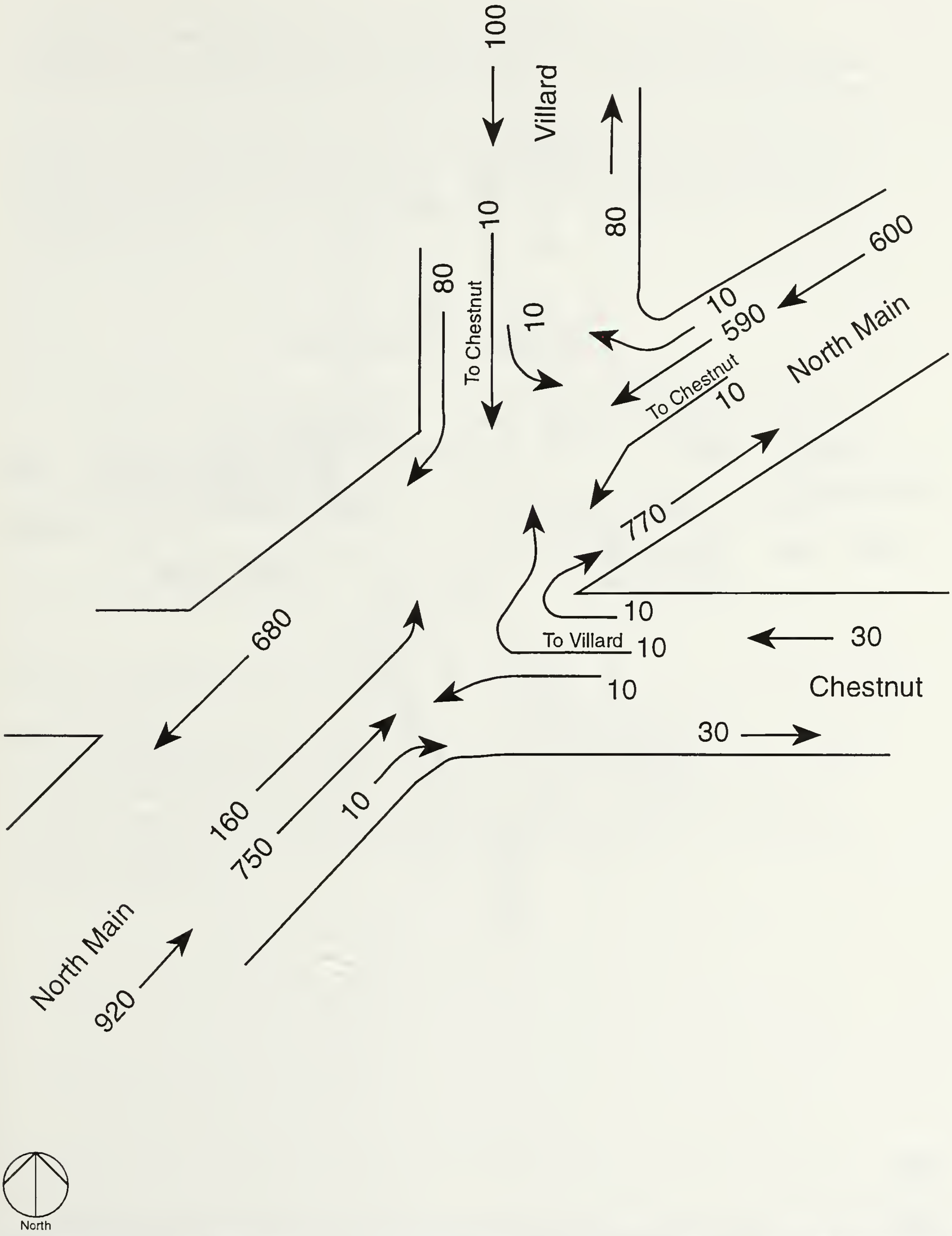


Figure 4-3

1994 PM Peak Hour Turning Movements
Villard/Chestnut/North Main Intersection

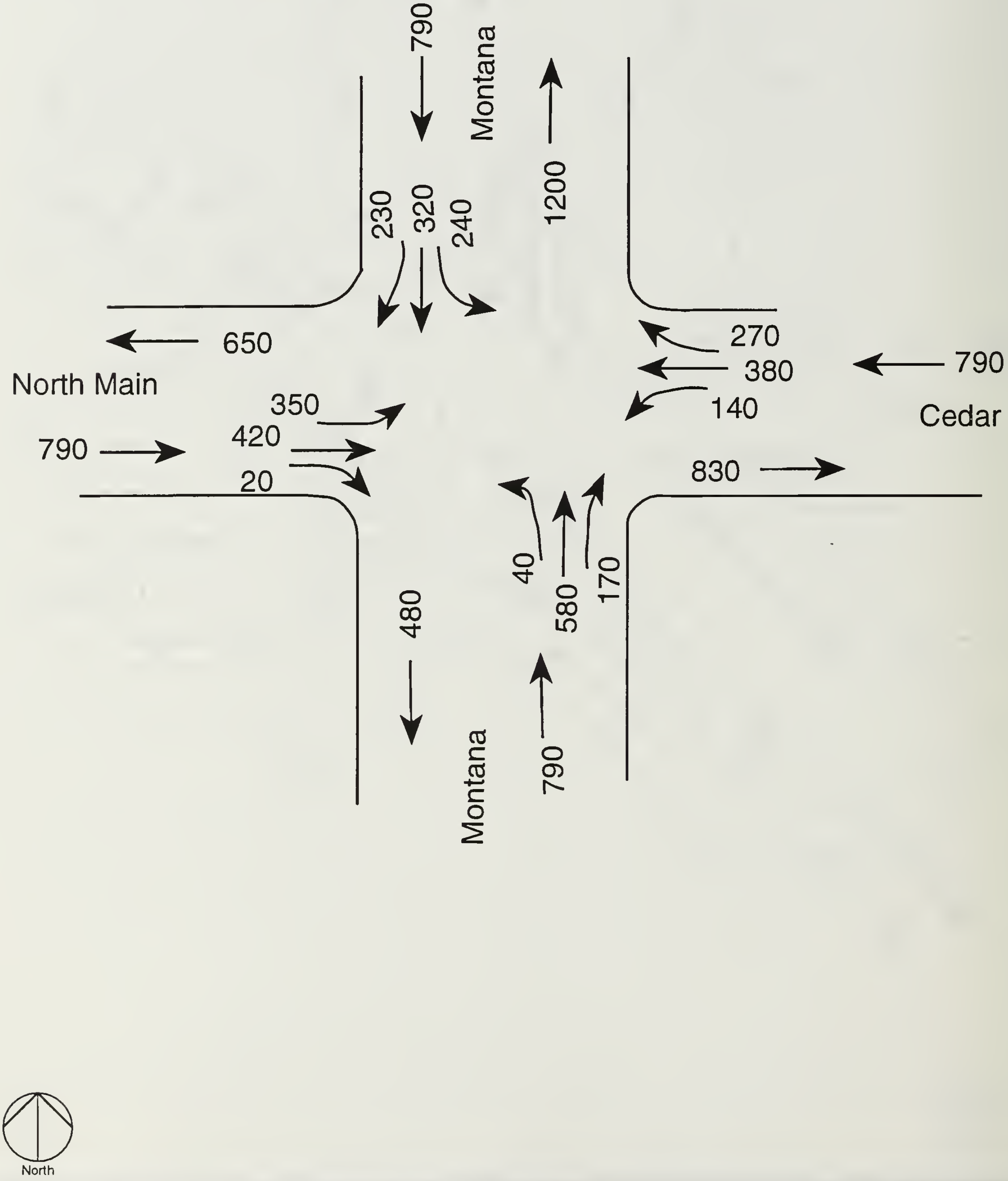


Figure 4-4

1994 PM Peak Hour Turning Movements
Montana/Cedar/North Main Intersection

Congestion is characterized by slower than desired travel speed, increased and unpredictable travel times, increased accident frequencies, erratic stop and go, increased vehicle operating costs and other undesirable conditions resulting in user dissatisfaction.

Levels-of-Service range from LOS A meaning little or no delay or congestion to LOS F meaning unacceptable delay and congestion. A more detailed description of roadway segment and intersection LOS are provided in Figure 4-5. Table 4-1 presents existing intersection LOS.

Table 4-1
1994 Intersection Levels of Service

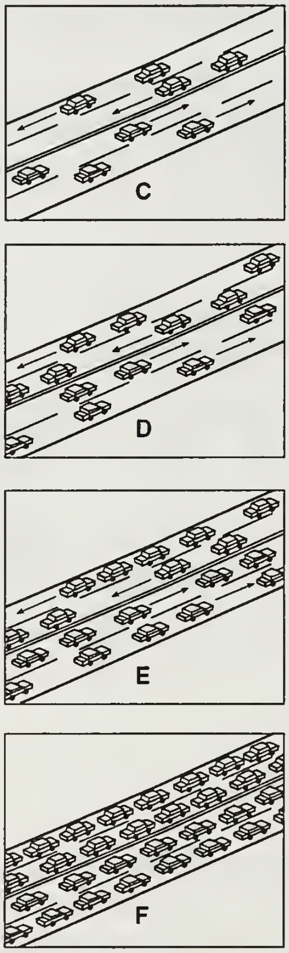
Intersection	PM Peak Hour LOS
• North Main/Lyndale/Last Chance Gulch	C
• North Main/Villard	E*
• North Main/Montana/Cedar	F

**LOS E for through and left-turn movements from Villard and Chestnut.*

4.1.2.3 Accident History

Accident data for three years was collected to identify accident trends along the corridor. Table 4-2 presents the total number of accidents for 1990 through 1993. Table 4-2 also presents a summary of the accidents by type and location. Approximately 15 to 20 percent of these accidents involved injuries and there were no fatalities. The accident rates for the project area are higher than the average for other urban areas in Montana, as shown in Table 4-2A.

LOS	Roadway Segments
A	Free flow, low traffic density
B	Minimum delay, stable traffic flow
C	Stable condition, movements somewhat restricted due to higher volumes, but not objectionable for motorists
D	Movements more restricted,queues and delays may occur during short peaks, but lower demands occur often enough to permit clearing, preventing excessive backups
E	Actual capacity of the roadway involves delay to all motorists due to congestion
F	Forced flow with demand volumes greater than capacity resulting in complete congestion



LOS	Intersections
A	No vehicle waits longer than one signal indication
B	On a rare occasion vehicles wait through more than one signal indication
C	Intermittently vehicles wait through more than one signal indication, occasionally backups may develop, traffic flow still stable and acceptable
D	Delays at intersections may become extensive, but enough cycles with lower demand occur to permit periodic clearance, preventing excessive backups
E	Very long queues may create lengthy delays
F	Backups from locations downstream restrict or prevent movement of vehicles out of approach creating a "gridlock" condition

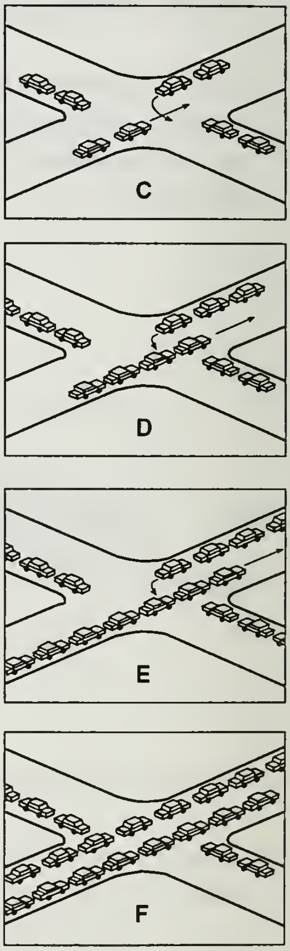


Figure 4-5
Level of Service

Table 4-2
Accident Summary
1990 Through 1993

Location	Accident Type							Bad Weather	Total	Injury	Fatal
	Angle	Head-On	Rear-End	Side-Swipe	Fixed Object	Pedestrian	Other				
Lyndale and N. Main	11	1	32	1	1	1	2	17	49	9	0
N. Main, Lyndale to Memorial			3					1	3	0	0
Memorial and N. Main		1						1	1	0	0
N. Main, Memorial to Chestnut	1		7					1	8	1	0
Chestnut and N. Main	2		1		1		1	2	5	0	0
Villard and N. Main	1		3					1	4	2	0
N. Main, Villard to Columbia			1					1	1	0	0
Columbia and N. Main		1	1					0	2	0	0
Poplar and N. Main					1			0	1	1	0
N. Main, Columbia to National			2					0	2	0	0
National and N. Main			3	1				1	4	1	0
Dodge and N. Main	2							0	2	0	0
N. Main, Dodge to Montana			1					1	1	0	0
Montana and N. Main	24		24	1	1		1	26	51	8	0

Table 4-2A
Accident Data
Statewide Average/Study Area

Statewide Average*	Study Area
All vehicles accident rate: 4.90 High average: 8.09	7.88
All vehicles severity rate: 1.25 High average: 1.50	1.16

**Statewide averages for all vehicles within city limits for all systems.*

Accident concentrations occur at both of the signalized intersections. The major accident types are either angle accidents or rear-end accidents. Angle accidents normally occur during a turning movement. This may be attributed to driver frustration, where motorists may rush the turns and not have space to execute the maneuver. Rear-end accidents typically occur when turning vehicles impede through traffic. Both types of accidents likely result from a lack of adequate channelization for turning movements. Accident locations are shown on Figure 4-6.

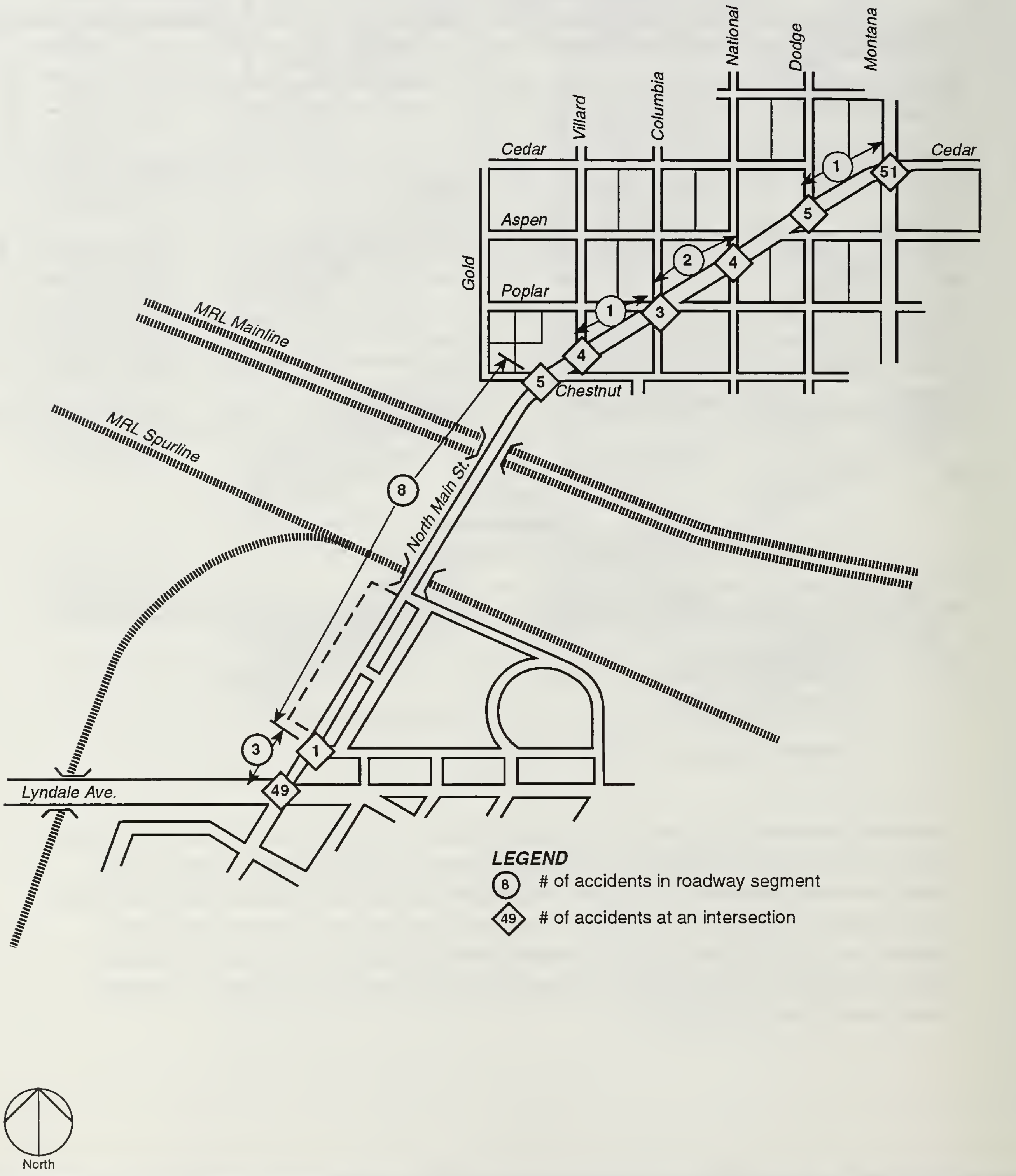


Figure 4-6

Accident Locations - 1990 through 1993

In the remainder of the corridor (between the two main intersections), the majority of accidents are rear-end type accidents. This is attributable to the lack of channelization and the lack of defined access points. Motorists who are turning left from the through lanes will stop at points throughout the corridor in the through lane. Since the access points are poorly defined, these vehicles may be stopping unexpectedly in the through traffic lanes. The lack of defined accesses also results in vehicles entering adjacent businesses from any angle or direction.

4.1.2.4 Traffic Controls/Parking

The existing speed limit for the majority of the corridor is 35 mph. There is a speed reduction zone for southbound traffic approaching Lyndale Avenue. Speed for that segment is reduced to 25 mph.

Traffic signals are located at either end of the project. The intersections of North Main/Lyndale/Last Chance Gulch and North Main/Montana/Cedar are signalized. Pedestrian-actuated signals currently exist at both signals. All side streets approaching North Main Street are stop sign controlled.

Street lighting exists sporadically throughout the length of the corridor. The existing street lighting facilities are old and provide illumination of low intensity and quality.

The existing roadway is striped with a double yellow line for the length of the corridor. Openings in the center stripe occur at intersections. Auxiliary lanes at the North Main/Lyndale/Last Chance gulch and North Main/Montana/Cedar intersection are striped with direction arrows provided. Cross-walks exist between Bausch and Memorial parks, at National Avenue and at the North Main/Montana/Cedar intersection.

The majority of the parking in the corridor is off-street parking, with the exception of on-street parking on the east side of North Main between Lyndale Avenue and Memorial Drive. Off-street parking occurs at both Memorial and Bausch Parks, the National Guard Armory and at the businesses along the corridor. Much of the off-street parking is undefined due to a lack of designated parking spaces.

4.1.3 Forecast Traffic and Operations

4.1.3.1 Forecast Traffic Volumes/Traffic Assignment

It is anticipated that this project will be ready for construction by the end of the 1997. To provide for a 20-year design life from its time of construction, North Main Street traffic volume forecasts have been made for the year 2017. Forecast traffic volumes have been determined based on an annual growth rate of 1.5 percent and compared to the

Helena traffic forecast model developed for the *Helena Transportation Plan 1993 Update.* Forecast traffic volumes for North Main Street and area roadways are shown on Figure 4-7.

PM Peak hour projected turning movement volumes for 2017 were developed by applying the 1.5 percent annual growth rate to existing 1994 PM peak hour turning movement volumes. Projected turning movement volumes for North Main Street and Lyndale Avenue, North Main Street and Villard Avenue, and North Main Street and Montana Avenue are shown on Figures 4-8 through 4-10.

4.1.3.2 Forecast Roadway Segment Level of Service Analysis

Planning level segment capacities can be compared utilizing lane capacities used in traffic model forecasting for Montana cities. Since capacity restraint was not used in the Helena traffic forecast model, lane capacities from traffic models used in other Montana cities of comparable size (Bozeman, Kalispell) can be used as shown in Table 4-3.

Table 4-3
Roadway Segment Speeds and Capacities

Average Travel Speed (mph)	Volume/Hour/Lane at LOS C	Capacity/Hour/Lane
15	400	500
20	500	650
25	600	800
30	700	950
35	800	1,050
40	900	1,200

Volume per hour per lane at LOS C is converted to capacity (LOS E) per hour per lane by dividing by 0.75 (generally consistent with volume-to-capacity ratio per LOS comparisons from the 1965 Highway Capacity Manual).

As shown in Figure 4-7, the traffic demand projected for 2017 along North Main Street is 19,600 to 24,000 vehicles per day. Several assumptions must be made to extrapolate an hourly peak volume from this daily estimate. Based on existing traffic volume characteristics along the corridor, the following assumptions have been used:

Percent of daily traffic in peak hour:	9%
Percent of traffic in peak direction:	55%

Based on these assumptions, the projected hourly peak directional volume is 1,190 vehicles per hour.

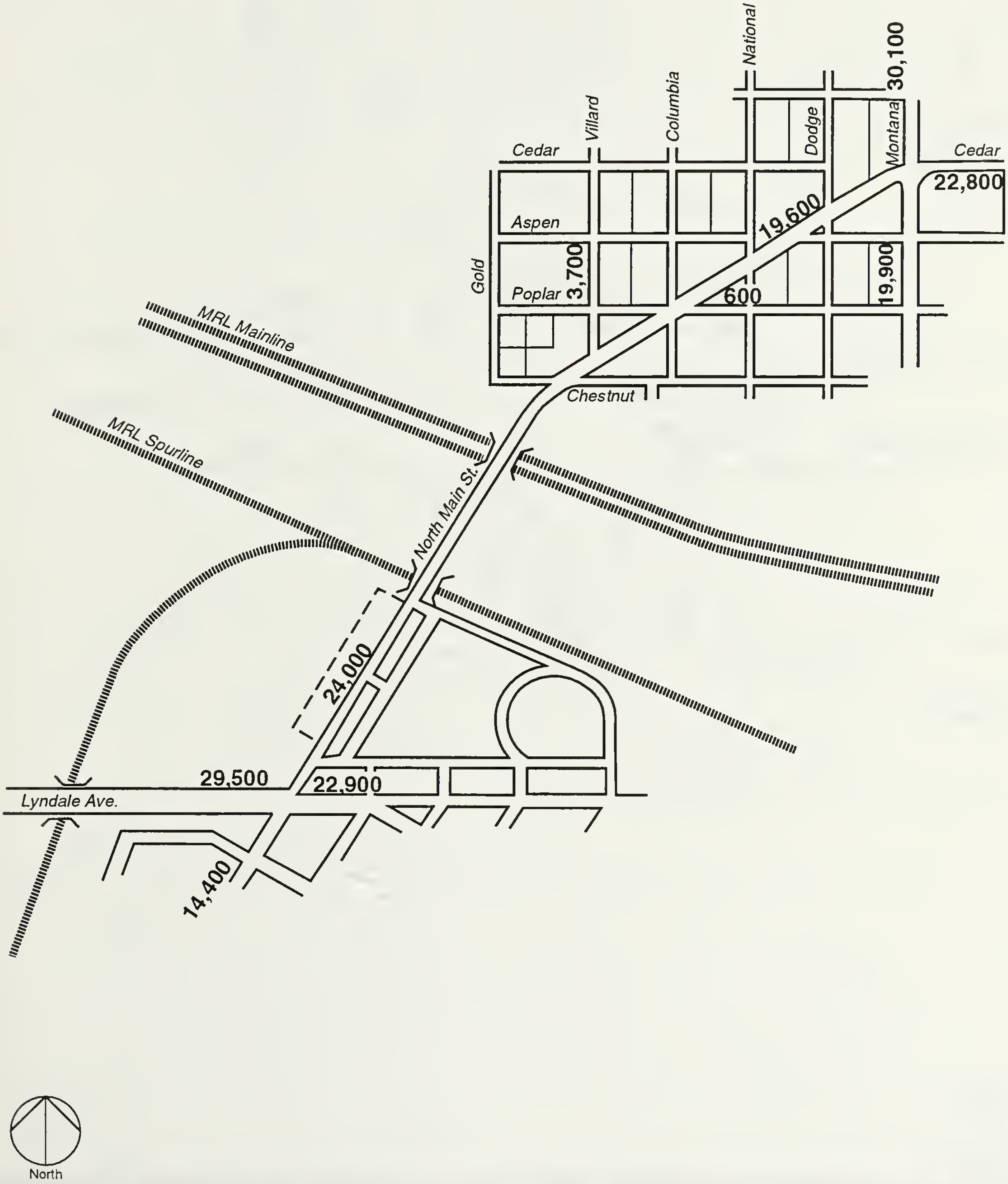


Figure 4-7

Year 2017 Forecast Average Daily Traffic Volumes

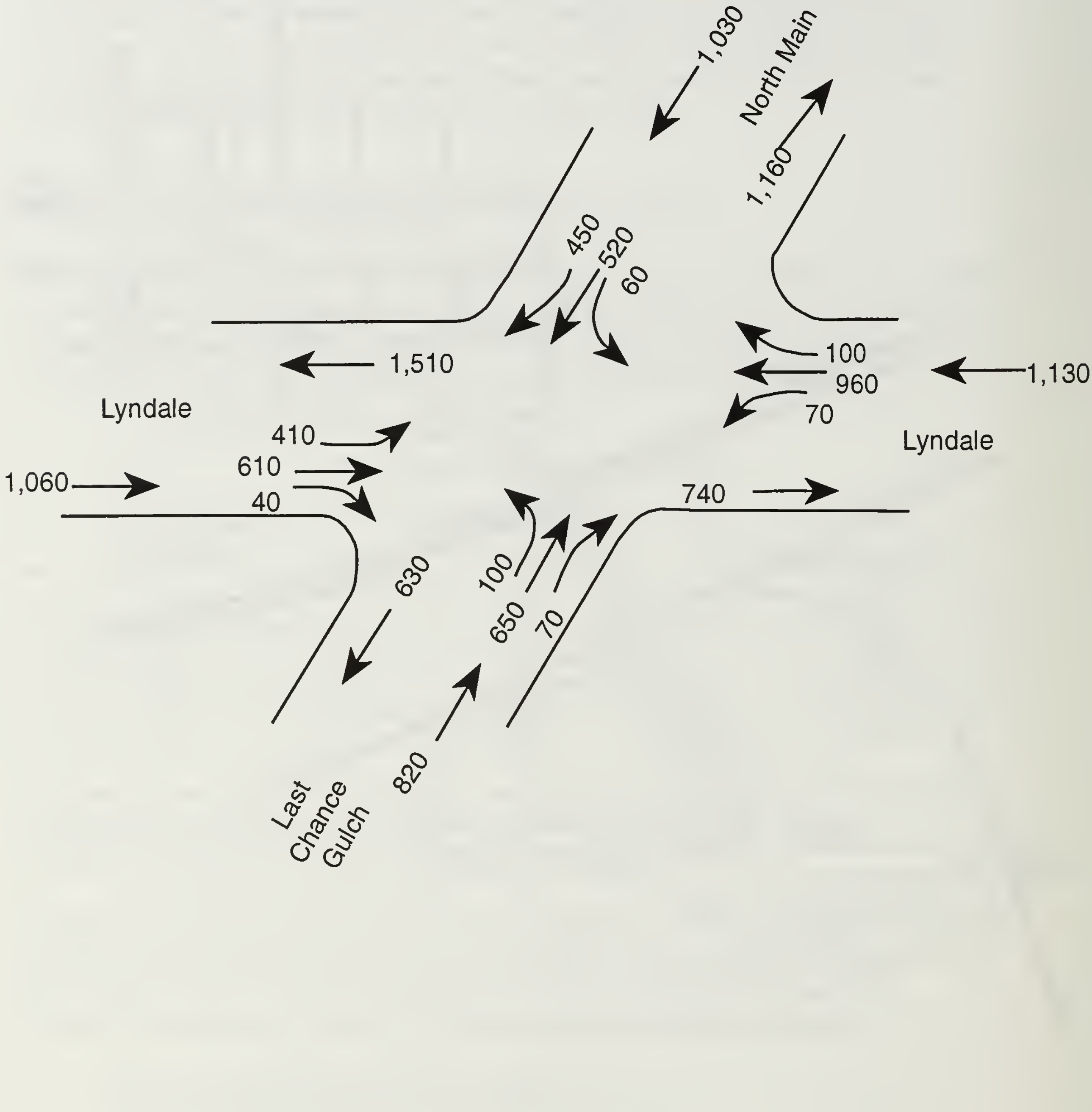


Figure 4-8

Year 2017 Forecast PM Peak Hour Turning Movements
Lyndale/Last Chance Gulch/North Main Intersection

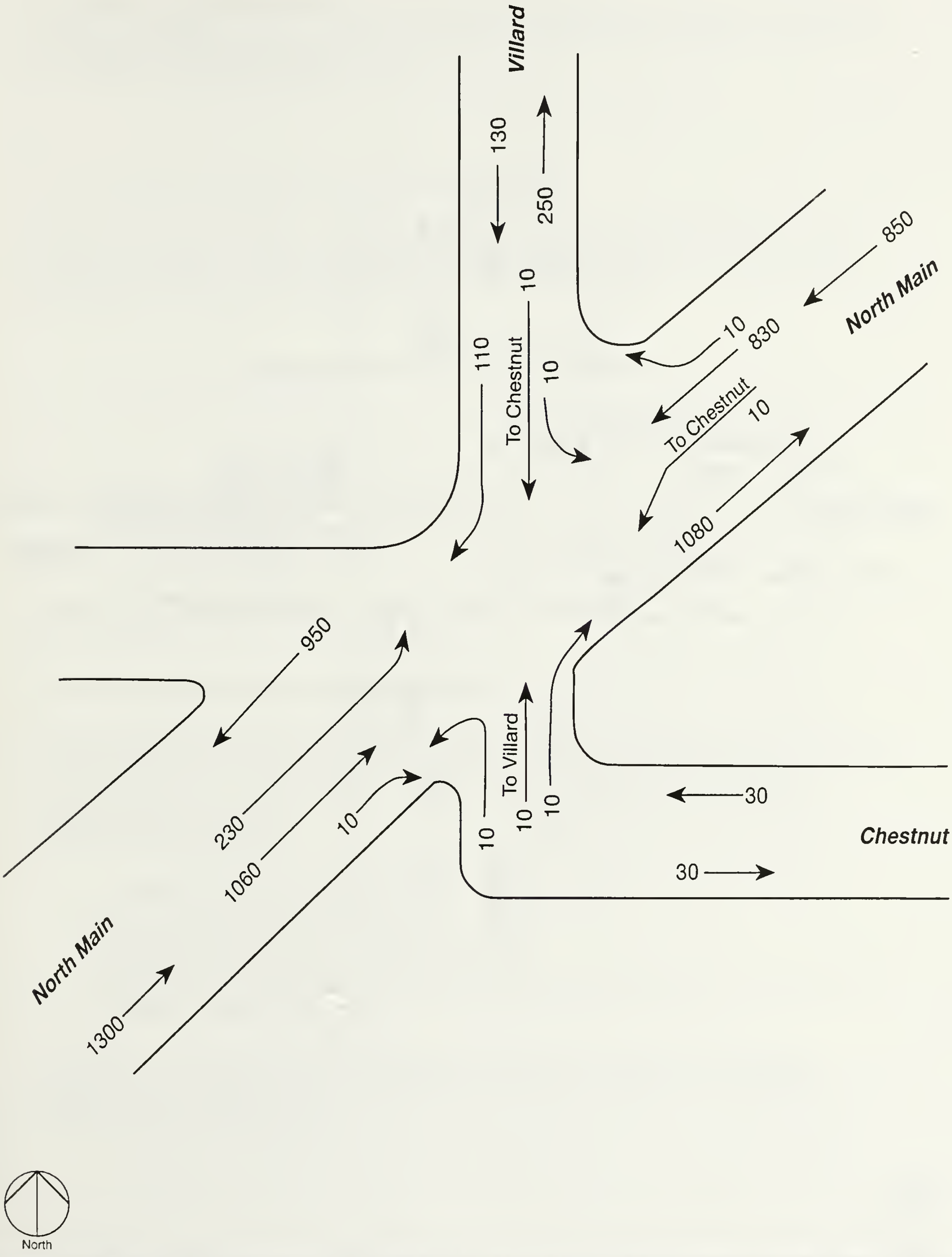


Figure 4-9
Year 2017 Forecast PM Peak Hour Traffic Volumes Villard/Chestnut/North Main Intersection

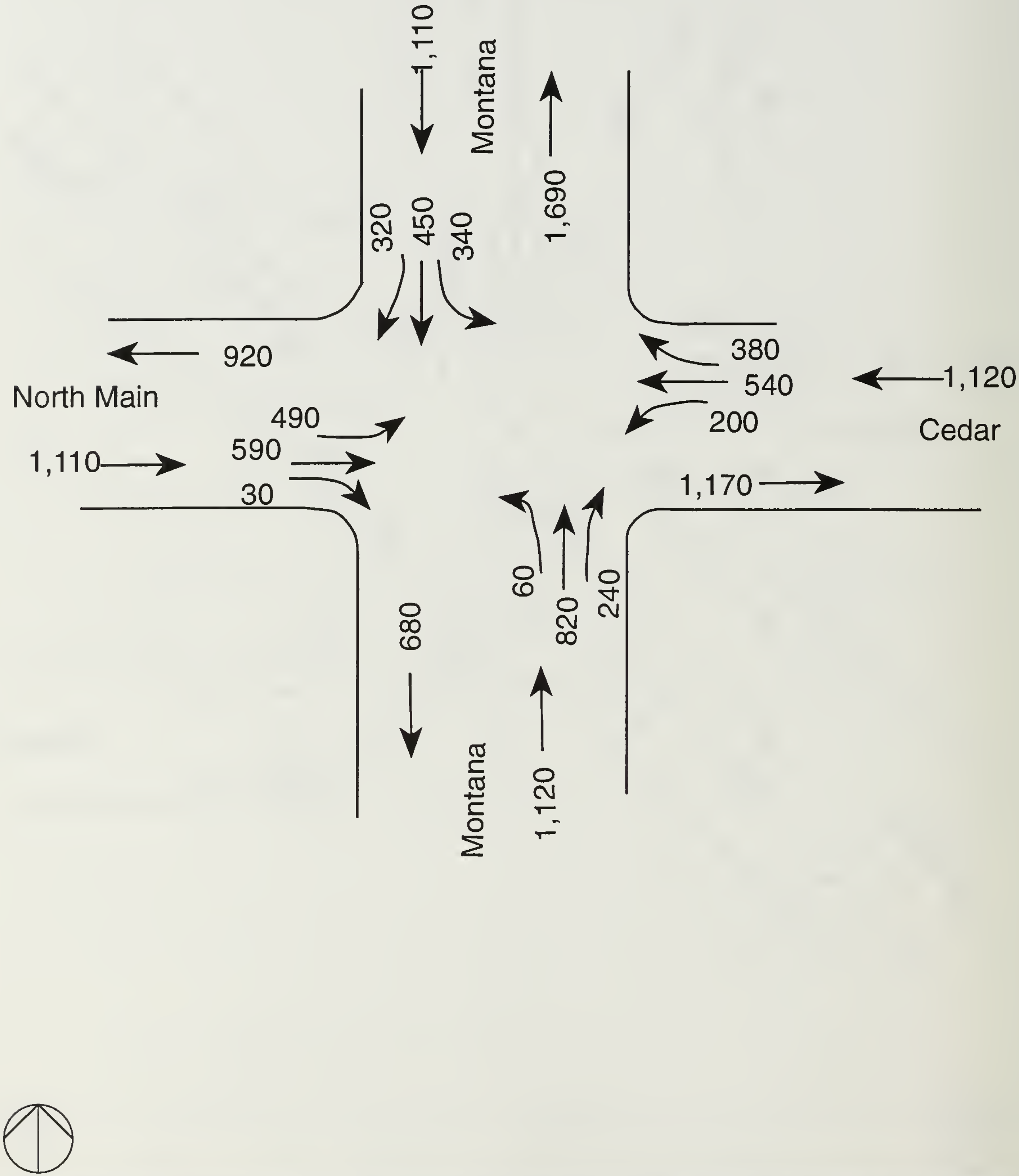


Figure 4-10
2017 Projected PM Peak Hour Turning Movements
Montana/Cedar/North Main Intersection

The Preferred Alternative (Four-Lane facility) with average travel speed of 30 to 35 miles per hour will operate at about LOS B conditions. The No-Build Alternative will operate at conditions exceeding capacity (LOS F).

4.1.3.3 Forecast Intersection Level of Service Analysis

Analyses of forecast traffic volumes and intersection capacities were conducted for the Preferred Alternative. Table 4-4 presents a summary of the analyses at the two major intersections at the project termini and at the Villard intersection.

Table 4-4
Projected 2017 PM Peak Hour Level of Service

	PM Peak Hour LOS	
Intersection	**No-Build Alt.**	**Preferred Alt.**
• North Main/Lyndale/Last Chance Gulch	F	C
• North Main/Villard	F	B
• North Main/Montana/Cedar	F	C

Proposed intersection geometrics are discussed in Section 4.1.6.

4.1.4 Transportation Demand Management

The purpose of Transportation Demand Management (TDM) in urban areas is to alleviate traffic congestion on existing transportation facilities through strategies intended to reduce peak-period commuter trips by single-occupant vehicles. Typical urban area TDM components include:

- Comprehensive public transportation (transit) services;
- Carpool and vanpool programs;
- Walking and bicycling (see Section 4.6);
- Employer-based programs, including telecommuting, staggered work hours, ride-sharing and shared parking

The *Helena Area Transportation Plan* contains a chapter on TDM and emphasizes consideration of TDM measures in conjunction with improvements to transportation infrastructure in the Helena area.

Improvements to Helena's existing public and special interest transit services could help reduce vehicular demand on major streets in the area. Any such improvements should be implemented as part of urban improvements and developments in exurban areas such as the Helena valley.

Existing public transportation services in the Helena area consist of a city-operated Dial-A-Ride bus system, a taxi company, and a limousine service. There are also a number of public and private special interest organizations that provide transit services oriented toward individuals or groups including disabled persons, senior citizens, school children, special activity programs, and tourists.

The current *Helena Transit Development Plan* (TDP) was prepared in 1990. The TDP evaluates the various transit systems in the Helena area for purposes of identifying the deficiencies and needs of the collective transit system and individual transit providers. The TDP contains the following short-term and long-term improvement recommendations for the Dial-A-Ride bus service and other transit operators in the Helena area:

Helena TDP Short-Term Recommendations

- Subsidize transit needy riders through bus discount passes, and set fares for discount pass holders at $1.00
- Increase general public bus fare to $1.50
- Require previous day notice for Dial-A-Ride
- Contract out most expensive rides to the taxi company
- Operate third Dial-A-Ride bus during periods of peak demand
- Purchase a new radio base station
- Computerize the Dial-A-Ride system
- Expand service to include 20 hours of evening and weekend service
- Replace oldest buses in fleet in even-numbered years
- Increase city general fund contribution by about $5,000

Helena TDP Long-Term Recommendations

- Convert Dial-A-Ride to a brokerage system
- Consider a Downtown "trolley" shuttle
- Provide exclusive Old Trapper Taxi service to the airport
- Old Trapper Taxi should play a larger role in the overall transit system
- Construct park and ride facilities in exurban areas
- Encourage employer-employee carpool and vanpool programs

The City of Helena supports these improvement recommendations and the City's goal is to implement these improvements by the Year 2017.

4.1.5 Impacts and Mitigation

4.1.5.1 No-Build

The following is a description of the impacts for the No-Build Alternative:

- This alternative is not consistent with the *Helena Transportation Plan - 1993 Update*. This improvement project is a recommendation of the plan and has been a committed project in that plan since the 1981 update.

- The existing peak hour level-of-service for the intersections ranges from LOS C at Lyndale and North Main to LOS F at Montana and North Main as shown in Figure 2-1. The intersection level of service will continue to deteriorate as traffic volumes increase. The peak hour level of service for the roadway segments will also continue to deteriorate as traffic volumes increase.

- Safety will continue to decrease along the corridor as traffic volumes increase. The numbers of accidents will likely increase as traffic increases without additional capacity or channelization.

- As congestion increases, traffic will likely divert to alternative routes such as Benton Avenue and other streets through adjacent residential neighborhoods, not intended to carry large through traffic volumes.

- Increased congestion may influence drivers to use other modes of transportation than the automobile. Increased transit demand would require more service to be provided, and increased pedestrian and bicycle travel would require improved sidewalks and bike paths/lanes, not provided by the existing transportation network.

- Continued deterioration of the already poor conditions of the existing pavement and structures.

4.1.5.2 Preferred Alternative

The following is a description of the impacts for the Preferred Alternative:

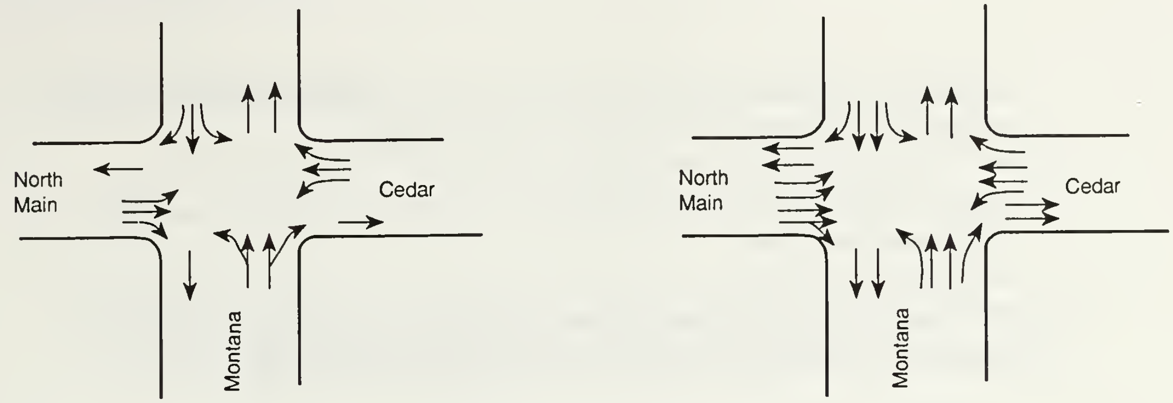
- This alternative is consistent with the recommendations of the *Helena Transportation Plan - 1993 Update.*
- The 2017 intersection peak hour level-of-service will be a minimum LOS C as shown in Table 4-4 (provided Cedar Street is widened to four through lanes east on Montana Avenue).
- The 2017 peak hour level-of-service for the roadway segments will be LOS B.
- Safety will improve on the corridor as accidents are expected to decrease with improvements to channelization for turning movements and other improvements provided by the roadway reconstruction.
- Traffic is not expected to divert to alternative routes since adequate capacity on North Main will be provided.
- Drivers may not be encouraged to use other modes of transportation since this alternative will provide a desirable level of service.

Following is a description of the measures included in the Preferred Alternative to provide adequate capacity for the projected traffic volumes. These include improvements at the North Main/Last Chance Gulch/Lyndale, North Main/Villard/Chestnut, and North Main/Cedar/Montana intersections as measures to improve levels-of-service at these intersections. Existing and proposed intersection geometrics are shown in Figure 4-11:

☐ North Main/Last Chance Gulch/Lyndale

- Provide an additional eastbound (west leg) exclusive left-turn lane to allow double left-turn lanes.
- Add one westbound (east leg) exclusive right-turn lane to allow two exclusive through lanes.
- Provide one exclusive left-turn lane, one through lane and one exclusive right-turn lane on the southbound approach (north leg).

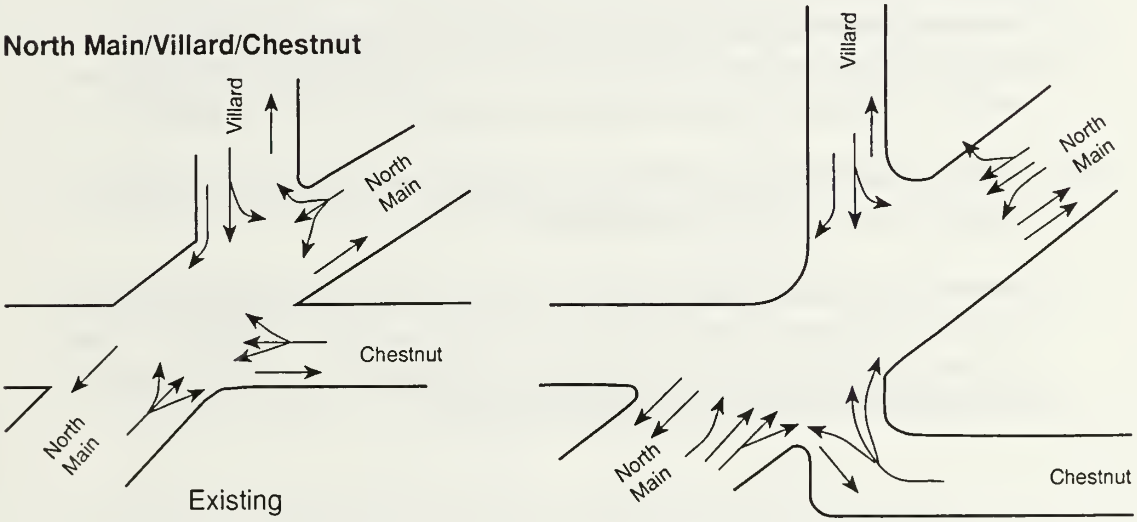
North Main/Cedar/Montana



Existing

Proposed

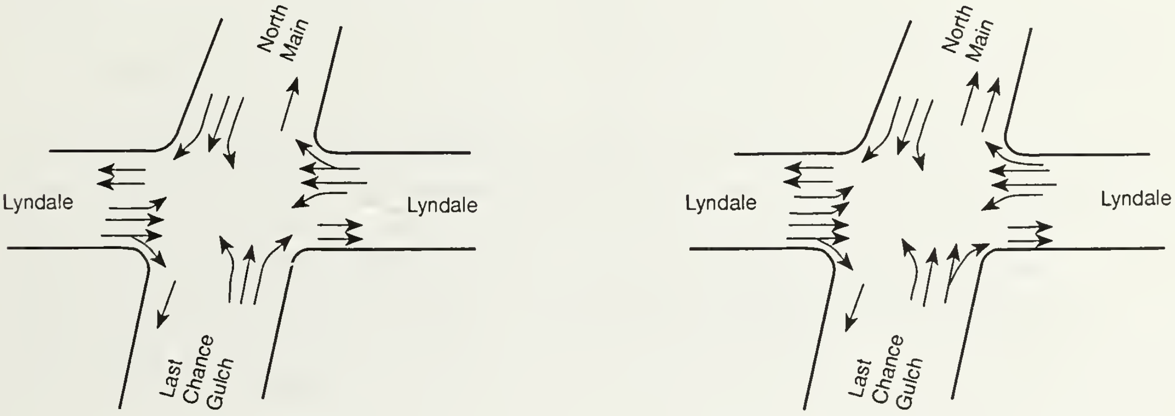
North Main/Villard/Chestnut



Existing

Proposed

North Main/Last Chance Gulch/Lyndale



Existing

Proposed

Figure 4-11

Existing and Proposed Intersection Geometrics

- Restripe existing northbound (south leg) exclusive right-turn lane to a shared through and right-turn lane to allow two through lanes.
- Change traffic signal timing plan to allow protective/permissive northbound and southbound left turns.
- Coordinate traffic signal timing plan with North Main/Cedar/Montana traffic signal and proposed North Main/Villard/Chestnut traffic signal.

☐ North Main/Villard/Chestnut

- Restripe southbound (north leg) Villard Avenue approach to formalize an exclusive right-turn lane in what at present is sufficient width on the approach such that right-turning vehicles can be positioned next to other vehicles.
- Add one shared through and right-turn lane and one exclusive left-turn lane to both approaches on North Main Street.
- Provision for the future installation of a traffic signal that includes an exclusive phase for northbound North Main Street and right turns on southbound Villard Avenue in addition to signal phases for north/south traffic on Main Street and through traffic movements for Villard/Chestnut.

☐ North Main/Cedar/Montana

- Add one eastbound (west leg) exclusive left-turn lane to allow double left-turn lanes.
- Provide an eastbound (west leg) exclusive right turn and one through-lane during the opening year. Restripe existing eastbound exclusive right-turn lane to a shared through and right-turn lane to allow two through lanes at the time Cedar is widened for additional lanes to I-15.
- Provide one westbound (east leg) exclusive through-lane and one combined right turn-lane/through during the opening year. Add one westbound exclusive through lane to allow two exclusive through lanes at the time Cedar is widened for additional lanes to I-15.
- Add one northbound (south leg) exclusive left-turn lane and one exclusive right-turn lane to allow two exclusive through lanes.
- Add one southbound (north leg) exclusive through lane to allow two exclusive through lanes.
- Install eight-phase traffic signal to allow protective/permissive left turns in all directions.
- Coordinate traffic signal timing plan with North Main/Last Chance Gulch/Lyndale traffic signal and proposed North Main/Villard/Chestnut traffic signal.

4.1.5.3 Parking

The on-street parking between Lyndale and Memorial Drive will be removed. The widening of the street and bicycle/pedestrian path cross-section will also impact off-street parking at several properties along the corridor. Locations of parking area impacts as result of the Preferred Alternative are shown on Figure 4-12 and described along with possible mitigation measures in Table 4-5. The possible mitigation measures shown are intended to provide one measure possible to mitigate parking impacts. These measures may be modified in design.

Table 4-5
Parking Impacts and Mitigation for Preferred Alternative

Number	Property	Existing Parking	Impacts	Possible Mitigation Measures
1	National Guard Armory	Approx. 35 stalls north of building	Impacts 6 stalls fronting North Main	Realign N. Main access
2	The Donut Hole	Approx. 30 stalls surrounding building	Impacts maneuvering space on west side of building	Realign and define access
3	Montana Power Company	15 stalls and loading zone	Impacts two spaces. One access removed.	Realign access and parking.
4	Skains Flooring	Approx. 15 stalls along Chestnut, 8 stalls on west side of bldg. Additional space south of bldg.	Angle parking along west side of building impacted.	Realign and replace parking
5	Sharbono	27 total stalls	Potential impact to 12 stalls that abut roadway	Steepen slope to 2:1 or install retaining wall
6	Lanning & Associates	5 stalls on ROW, 34 stalls in lot rear of bldg.	All 5 stalls in front of building would be lost	Relocate parking
7	Knoxville Building	16 stalls fronting N. Main, 2 stalls fronting Villard	Impacts maneuvering space for stalls fronting N. Main	Realign access and parking
8	Jerry's Highway Service	Undefined parking area in ROW at corner of Chestnut and N. Main	All space within ROW will be impacted with realignment of Chestnut	Realign access at parking.
9	Bob's Fine Cars	15 stalls west & south of bldg., 5 head-in stalls NE of bldg.	Impacts 7 stalls on N. Main ROW. Loss of maneuvering space NE of bldg.	Reconfigure access and parking
10	Kev's Auto Sales	10 stalls fronting N. Main, 13 stalls NE of bldg.	Impacts 10 stalls fronting N. Main and 3 stalls NE of bldg.	Relocate parking
11	Tire-Rama	10 head-in stalls N. of bldg. 4 head-in stalls W. of bldg. Additional undefined parking behind bldg.	Impacts 7 stalls N. of bldg. and 4 stall E. of bldg.	Relocate parking
12	Allen's Superstore / Allen Electric	20 stalls N. of Superstore 8 stalls N. of Allen Elec. 14 stalls in rear of bldg.	Impacts 2 spaces N. of Allen Elec. Access between Allen Elec. and superstore will be impacted.	Realign accesses

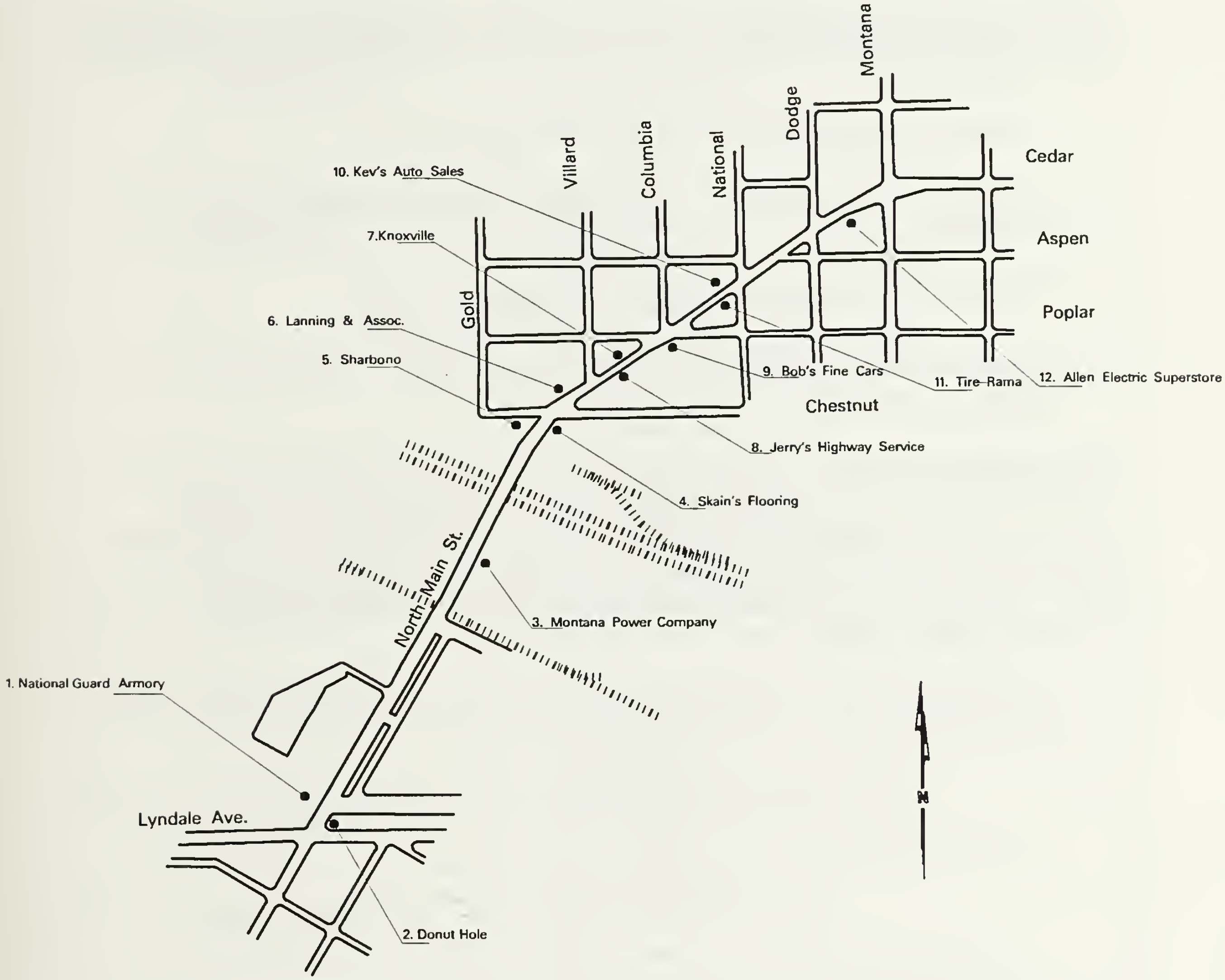


Figure 4-12
Parking Impacts

4.1.5.4 Access

Access to public streets and alleys will be modified with implementation of the Preferred Alternative. The following modifications to access to public streets will be made:

- Limit access to Memorial Drive to right-in/right-out movements.
- Close Poplar Street at North Main. All traffic would access Columbia Avenue at this point.
- Realign Chestnut Street east to align with Villard Avenue.
- Close access to Aspen Street. Traffic would access Aspen Street by Dodge Avenue.
- Close north alley approach between Columbia and National.
- Close south alley approach between National and Dodge.

Access to the private drives will be altered as shown in Table 4-6. Access to private drives would require that left turn movements in and out of private drives would be prevented by the raised median that is included in the Preferred Alternative. Since there is a fully established street network, however, the median causes minimal out-of-direction travel for vehicles unable to make a left turn into or out of an adjacent driveway due to the raised median.

The following modifications to access to the private drives of the adjacent properties are proposed. Modifications may occur during design and right-of-way acquisition negotiations.

Table 4-6
Access Modifications

Number	Property	Access Modification
1	National Guard Armory	Limit access to right-in/right-out on North Main Street.
2	The Donut Hole	Eliminate one drive on Lyndale nearest North Main/Lyndale intersection. Eliminate access from North Main. Access maintained on Memorial Drive.
3	Centennial/Bausch Park	No change.
4	Memorial Park	Limit access on south entrance to right-in/right-out. Relocate center entrance to align with Centennial/Bausch Park entrance and limit right-in/right-out. Narrow and define northern entrance.
5	Montana Power	Limit access at two southern entrances to right-in/right-out. One access will remain in full access. Reconfigure parking to one-way traffic (south to north).
6	Skains Flooring	Align access to Chestnut Street and provide access south of Chestnut Street.
7	Lanning & Associates	Eliminate access to North Main. Access maintained on Villard Avenue.
8	Knoxville Building	Provide right-in/right-out access to North Main. Reconfigure parking for one-way traffic (north to south).
9	Bob's Fine Cars	Provide right-in/right-out access to North Main.
10	Jerry's Highway Services	Provide right-in/right-out access at northern end of property away from North Main/Chestnut intersection. Provide access on Chestnut Street.
11	Kev's Auto Sales	Limit access to right-in/right-out.
12	Tire-Rama	Provide right-in/right-out access plus access to National Avenue. Full access provided to drive opposite Columbia Street.
13	Radke Property	Eliminate center access. Limit remaining accesses to right-in/right-out. Provide access to National & Dodge Streets.
14	Allen's Electric	Provide access from Dodge Avenue and Aspen Street.
15	Allen's Superstore	Limit access on North Main to right-in/right-out.
16	Mountain View Chevron	Eliminate accesses on Montana and North Main.
17	Car Corner	Eliminate access on Montana and access nearest Montana Avenue on Cedar.

4.2 Land Use, Zoning and Land Use Planning

4.2.1 Existing Conditions

4.2.1.1 Land Use

North Main Street serves as a major travel route for persons traveling between downtown Helena and northern and northeastern sectors of the city. North Main also serves as a major travel route between downtown and suburbanizing areas of the Helena Valley. Population growth in the central and north Helena Valley is contributing to increased traffic on North Main Street.

Land uses adjoining the North Main corridor include a mix of park land and commercial, light industrial, and residential land uses (see Figure 4-13). The North Main corridor is also intersected by two parallel railroad corridors. The overpass above Montana Rail Link's (MRL) east-west mainline effectively bisects the study area into north and south sectors. To the south of the MRL mainline, the City of Helena, Montana Rail Link, and the Montana Power Company own the largest parcels of land adjacent to North Main Street. These properties are located south of the MRL mainline tracks. The City's property includes two parks, one on each side of North Main Street. The YMCA and the National Guard headquarters also are located along this section of North Main.

The segment of North Main extending north of the MRL mainline is aligned southwest-northeast and diagonally bisects four rectangular city blocks and containing individual and multiple commercial and light industrial land uses. A residential area is located along side streets to the north of the corridor. Also to the north of MRL mainline and offset from north side of the North Main is a small industrial area. A small mobile home park is also located just to the south of North Main. The side streets to the south of this section of North Main serve one of Helena's older warehouse and industrial districts.

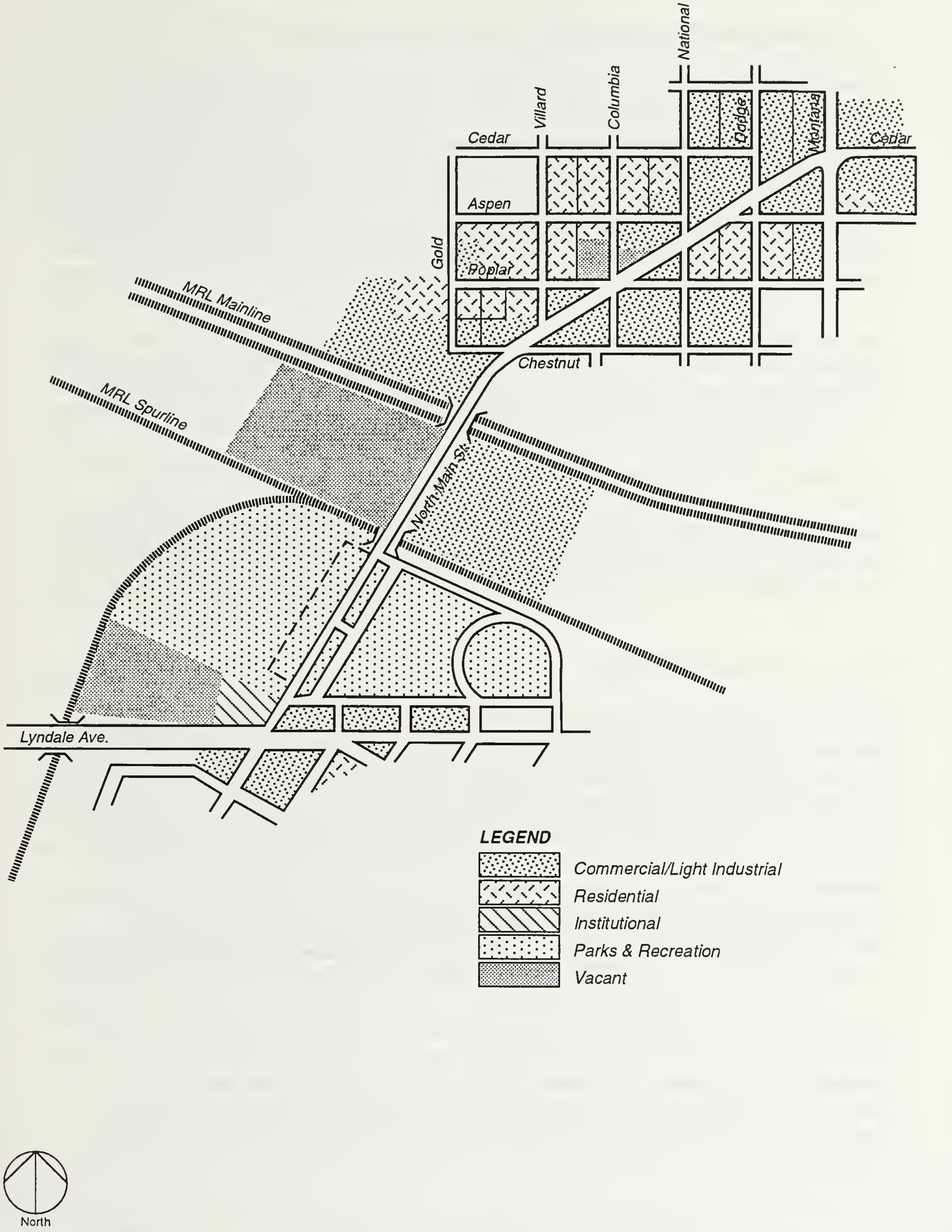


Figure 4-13
Existing Land Use

4.2.1.2 Land Use Characteristics for Surrounding Areas

North Main Street links two of Helena's most important north-south travel (North Montana Avenue and Interstate 15) corridors with downtown Helena. Helena's Central Business District (CBD) is the community's second greatest employment node, and also serves as a focus for local and federal government services, dining and entertainment, and financial services. The CBD's role as the community's retail center has been diminished by the advent of shopping malls and commercial strip development elsewhere, but the CBD continues to support considerable specialty retail and personal service type businesses.

Helena's long-term land use projections call for expansion of commercial and service type businesses and growth in private office and public sector employment in the CBD area. Projections also call for infilling of undeveloped residential properties near downtown, and the redevelopment of some areas to higher density residential land uses.

To the east of the project area, North Main turns into Cedar Street which continues eastward and intersects with Interstate 15. Cedar Street also supports commercial land uses, and is the location of the city's US Post Office. Helena's long-term transportation planning encourages greater commuter use of Interstate 15 in lieu of the North Montana corridor; which in turn will increase traffic on both Cedar Street and North Main.

4.2.1.3 Land Use Planning

The City of Helena also is planning for the redevelopment of the Great Northern railyard area, which is located just to the north of the CBD. The proposed zoning for the Great Northern area is expected to allow for a mix of commercial and medium or high density residential land uses. The redevelopment plan also calls for construction of a pedestrian and bikeway corridor through the center of the property. This corridor is expected to extend under Lyndale Avenue, behind Carroll College and the YMCA, and eventually intersecting with Benton Avenue. Also being considered is an eastward extension which would route pedestrian-bikeway corridor through the soccer and ballfield area and intersect North Main to the north of the YMCA. The Great Northern pedestrian-bike corridor could serve as a vital link in a city-wide system of pedestrian trails and bikeways.

The eastern end of the North Main project area intersects with North Montana Avenue which has historically served as the major north-south commuter route connecting the fast growing residential areas of the Helena Valley to the state capital complex and downtown. North Montana Avenue has existing commercial development along the corridor. Substantial additional business development is projected to occur along this corridor.

Traffic volumes along the North Main corridor are sufficient to support more intensive commercial development. Helena's long-range land use forecasts predict an upgrading of commercial land uses along the corridor from north of Montana Rail Link's mainline to intersection with North Montana Avenue. Traffic congestion, awkward side street alignments, and the absence of turning bays or lanes to facilitate left-turning movements currently create disincentives to reinvestment and upgrading of commercial land uses along this segment of North Main. The characteristics of land uses to the south of the MRL mainline are expected to remain stable; although expansion and improvements to existing uses is likely. The City of Helena and YMCA are expected to expand recreational uses in the old landfill area and the Montana Power Company will expand its employment in response to local and regional population and economic growth.

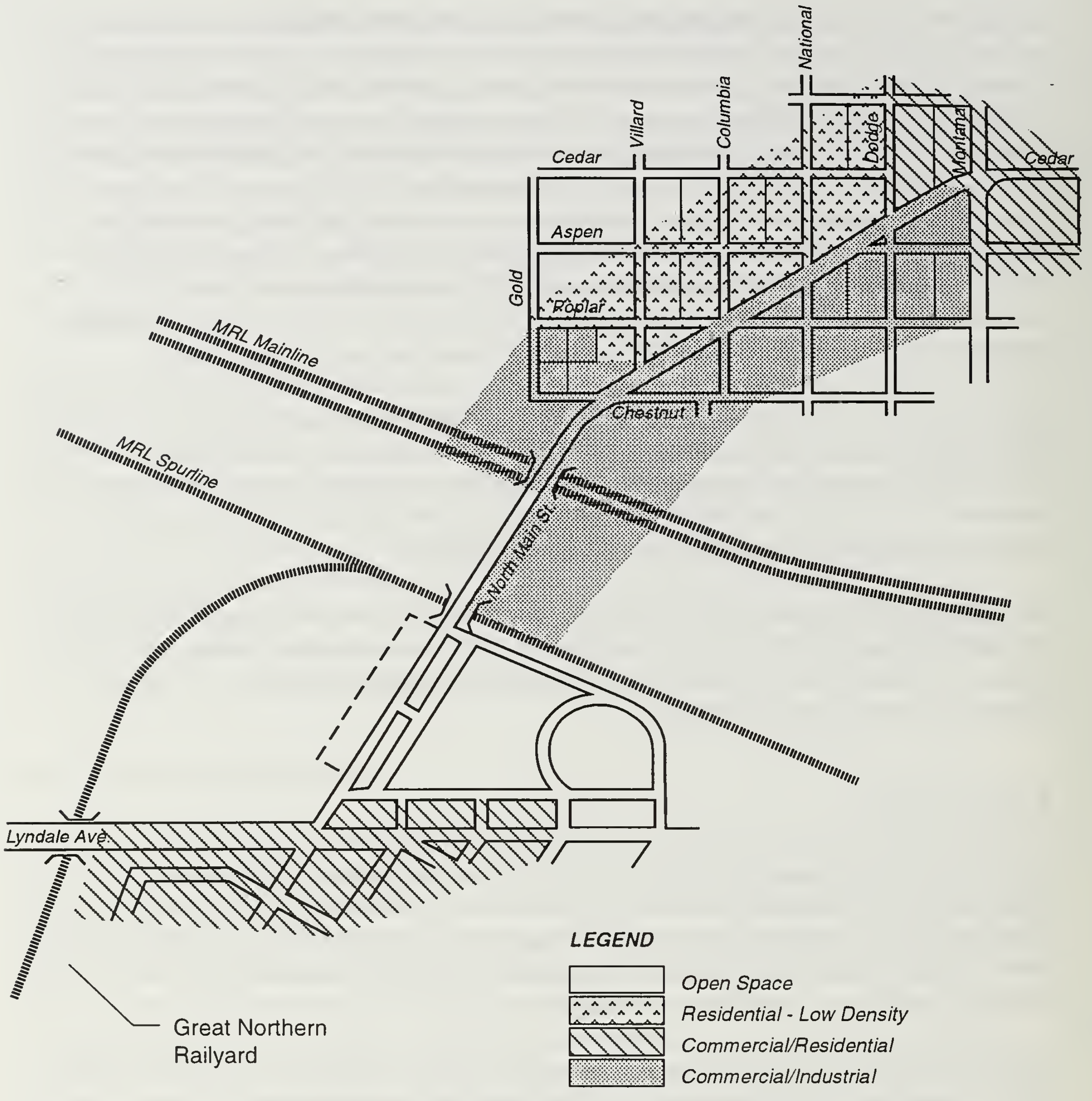
The *City of Helena Comprehensive Policy Plan - 1994 Update* was adopted by the Helena City Commission on April 18, 1994. The current document is a revision of the last Comprehensive Plan completed in 1981. The Comprehensive Plan provides a foundation for all city plans and ordinances, including the current Transportation Plan and zoning ordinances, and a guide for local policy makers.

The Comprehensive Plan contains a "Future Land Use Map" which displays five general land use designations reflective of current zoning districts and land use patterns for the Helena urban area. Four of these conceptual land use categories are located within, or adjacent to the corridor (Figure 4-14).

4.2.1.4 Zoning

Current zoning designations for the corridor are shown on Figure 4-15. Zoning regulations are contained in the City of Helena Ordinance Number 2359, 5-20-85. Approximately 75 percent of the corridor is zoned for commercial and/or industrial use, while about 20 percent is zoned for public open space and/or institutional use. The remaining portions are zoned for residential uses.

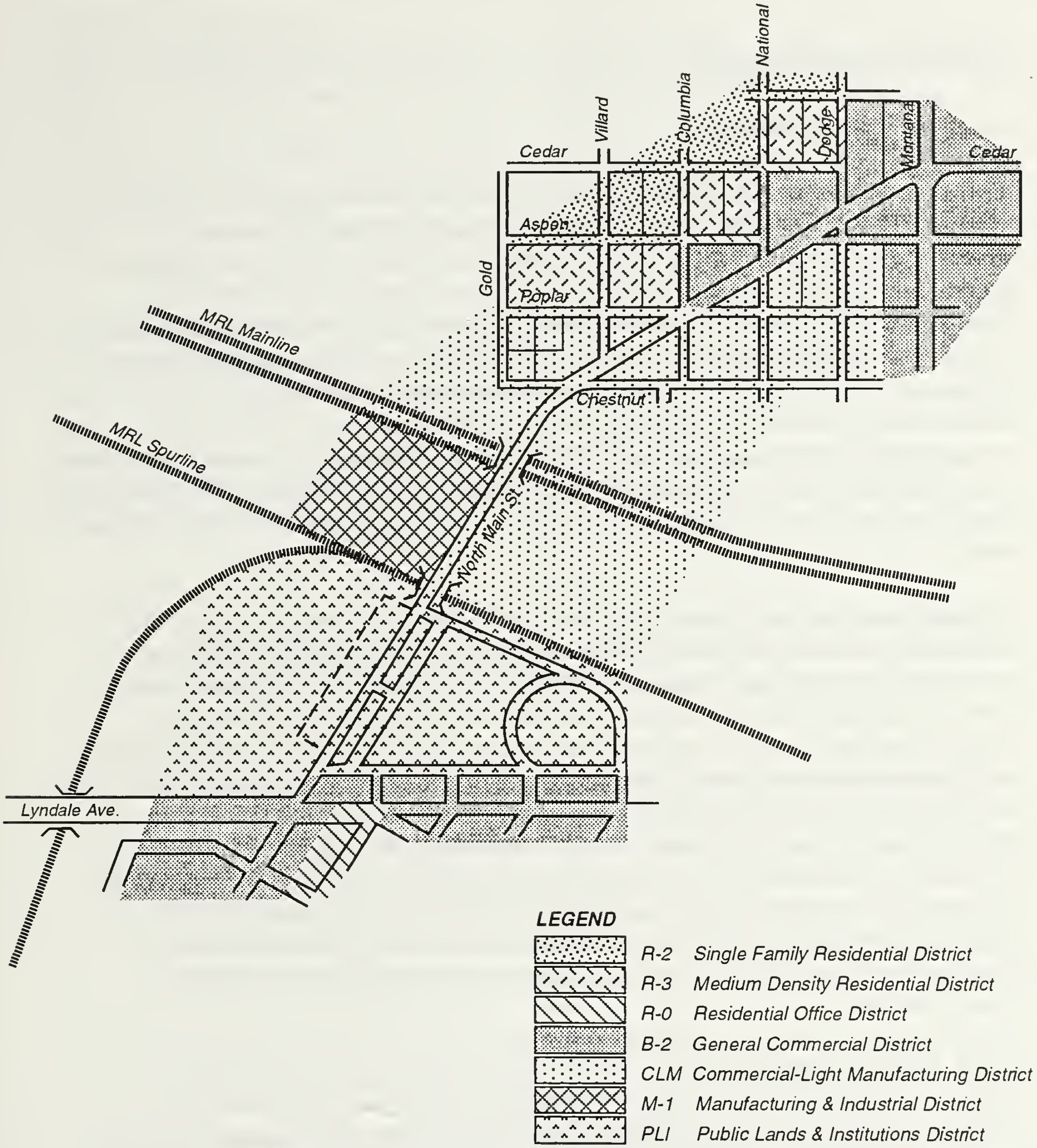
Existing land uses near the corridor are generally consistent with the current zoning in the project study area. The City's landfill site will likely be rezoned from M-I (Manufacturing and Industrial) to a transitional district and eventually to PLI (Public Lands and Institutions) to remain consistent with its proposed use as future recreation space.



Source: City of Helena Comprehansive Plan, 1994 Update

North

Figure 4-14
Future Land Use


National
Columbia
Villard
Dodge
Montana
Cedar
Cedar
Aspen
Gold
Poplar
MRL Mainline
Chestnut
MRL Spurline
North Main St.
Lyndale Ave.
LEGEND
R-2 Single Family Residential District
R-3 Medium Density Residential District
R-0 Residential Office District
B-2 General Commercial District
CLM Commercial-Light Manufacturing District
M-1 Manufacturing & Industrial District
PLI Public Lands & Institutions District
North

Source: Official Zoning Map of the City of Helena (as amended, 1989)

Figure 4-15
Existing Zoning

4.2.2 Impacts and Mitigation

4.2.2.1 No Build Alternative

The No-Build Alternative will have no direct impacts upon existing land uses in the project corridor. Continued increases in traffic using North Main Street without improving operations on the facility will result in excessive "overflow" traffic using alternate routes through residential neighborhoods and commercial/industrial areas. Continued elevation in traffic levels on connector streets and alternative route corridors within single-family residential areas west of the corridor could encourage accelerated conversion of these properties to higher density residential and commercial uses. Increased traffic traveling through light industrial areas east of the corridor could promote conversion of manufacturing and distribution facilities to more retail-oriented commercial uses. Potential alteration of land uses in areas near the corridor as result of the No-Build Alternative would not be consistent with existing zoning and planned land use for these areas.

Population growth in the greater Helena area will contribute to steady increases in traffic on all of the arterials which access the Helena CBD. An indirect effect of further deterioration of driving conditions on North Main will be to discourage re-investment in business properties along the corridor. Business development along North Main is already being constrained by congestion and constraints to turning movements. As traffic congestion increases and travel times and driving conditions worsen on North Main, more North Valley residents will choose to travel the Custer-Benton Avenue route to the Helena downtown area. This travel pattern will discourage commuter use of Interstate 15, which is in contradiction with the intent of the Helena Transportation Plan, and also will prompt further commercial strip development along North Montana and Custer Avenues. Deterioration of driving conditions on North Main will serve to route increasing traffic by Carroll College and residential areas along the Custer-Benton Avenue corridor.

4.2.2.2 Preferred Alternative

With exception of several areas currently used for parking or vehicle storage within the public right-of-way as described in more detail in Section 4.5, the Preferred Alternative will have no direct effect upon existing land uses or zoning within the corridor. The Preferred Alternative will not likely affect future land use in an inconsistent manner with future land uses shown in the current Helena Comprehensive Plan. The access modifications proposed for the Preferred Alternative along the north (commercial) segment of the corridor will likely encourage larger parcels of individual commercial land uses and consolidation of smaller businesses into larger lots with common access drives and shared parking areas.

The improvements to traffic flows and an ease turning movements along the North Main corridor will benefit businesses adjoining the corridor. Roadway improvements will help to create a business environment conducive to upgrading and reinvesting in existing commercial land uses along northern sections of the North Main corridor. Businesses will continue to be oriented to serving automobile travelers. Reductions in travel times to the CBD will foster increased use of the Interstate 15/Cedar Street/North Main/Last Chance Gulch connection to downtown, which may also benefit business development along Cedar Street and North Last Chance Gulch.

By providing immediate increased mobility for vehicular traffic traveling between downtown Helena and outlying areas to the north and east, the Preferred Alternative will support existing commercial land-uses along the corridor.

The Preferred Alternative is consistent with the following goal and objectives contained on page 8, the TRANSPORTATION section, of the City of Helena Comprehensive Policy Plan 1994 Update:

> **Goal:**
> Develop a comprehensive transportation system that meets the current and future needs of the greater Helena area, while respecting the area's natural and historic context and minimizing the adverse impacts to the environment.
>
> **Objectives:**
> 1. Plan, encourage, promote, develop and educate the public about alternative transportation and communication systems to minimize vehicle miles traveled (VMT) in the Helena area.
>
> 2. Plan a logical, energy efficient long-range arterial system, including interstate access, that can be systematically implemented by right-of-way reservations and advance acquisition procedures.
>
> 3. Encourage the development of an energy efficient transportation system that provides adequate access and egress to high volume traffic generation points, resolves railroad conflicts and minimizes negative transportation effects upon residential neighborhoods, giving consideration to excessive traffic volumes and speeds as well as impacts upon schools, streetscapes and neighborhoods.
>
> 4. Provide more opportunities for citizen involvement in the planning and implementation process.
>
> 5. Review all road improvement projects (construction and major maintenance) to determine the feasibility of including facilities for safe travel by pedestrians and bicyclists.

4.2.3 Mitigation

No mitigation for land use impacts is necessary.

4.3 Farmland

4.3.1 Existing Conditions

Determinations of existing farmland were made in coordination with the United States Department of Agriculture, Soil Conservation Service Lewis and Clark County District Office. Refer to Appendix A for coordination documentation.

There are no Prime or Unique Farmlands or Farmlands of Statewide or Local Importance located within the study area. All lands within the study area have been committed to urban development.

4.3.2 Impacts

None of the alternatives will have direct adverse effects upon existing farmland.

4.3.3 Mitigation

No mitigation of farmland impacts will be required for any of the alternatives.

4.4 Socioeconomic

4.4.1 Existing Conditions

Population and economic information contained in this section is based upon an analysis and forecast of Helena area socioeconomic conditions completed as part of the *Helena Area Transportation Plan -1993 Update.* This data was also used in preparing the City's 1994 update of the Comprehensive Plan.

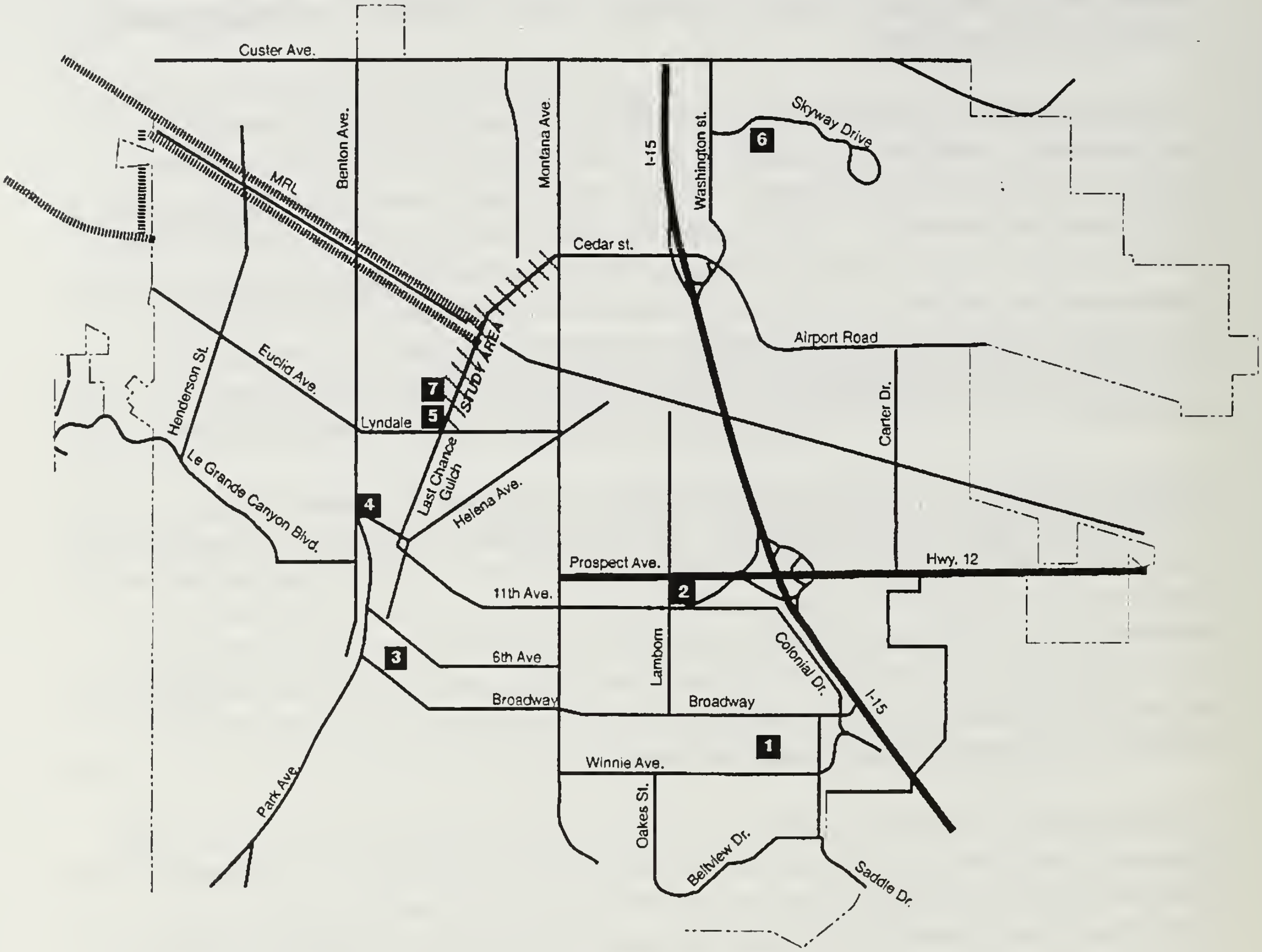
The City of Helena is characterized by a densely-developed, historic urban core surrounded by more modern suburban development in the peripheral areas. The 1990 Census population statistics indicate a population of 24,569 for the City of Helena and a population of 48,438 for the Greater Helena Area, which encompasses all outlying areas of Helena and includes residents of the south portion of Lewis and Clark County and the north portion of Jefferson County. The population forecasts for the year 2010 are 26,318 for the City of Helena and 63,470 for the Greater Helena Area, with most of its growth expected within the Helena Valley and Jefferson County, outside the existing boundaries of Helena and East Helena.

While most of the Greater Helena Area's recent population growth has occurred in outlying areas, a trend that is expected to continue for the next few decades, the City of Helena continues to foster the majority of the area's economic growth in terms of employment and commerce. The city supports over 90 percent of all jobs and sales in the Greater Helena Area. Federal and state government, the finance, insurance and communications industries, and primary metal manufacturing serve as the foundation of the Helena economy. Tourism is a growing component of the area's economic base. Since the early 1990s, in-migration of persons from out-of-state also has buoyed employment and earnings in the real estate and housing construction sectors industries.

Helena is a regional locus of intermodal commerce. The majority of surface cargo is transported through the city via Interstate 15, State Highway 12, and the Montana Rail Link (MRL) mainline. The Helena Regional Airport serves commercial airlines and air freight carriers. North Main Street provides a vital link in the center of Helena's trade network since it is the most central connection between Interstate 15 and US Highway 12 that is grade-separated from the railroad mainline, and the primary route between the airport and the CBD. Its function will expand in this capacity as new commercial and industrial development occurs around the airport.

Helena emergency service providers consist of fire, police and ambulance services. The Montana Power Company also responds to emergencies involving gas and electrical systems in the area. Existing emergency service locations are shown in Figure 4-16. North Main Street is the City's primary north-south route across the MRL tracks for all emergency service providers. In numerous situations when a train is crossing through the center of the City it is the only route available to emergency vehicles.

North Montana Avenue is a major north-south arterial. The railroad switching activities which are carried out in the Helena railyard area (to the south of North Main) cause frequent and often lengthy traffic delays at the at-grade railroad crossing on North Montana Avenue. The frequency of switching results from the need to disassemble and reassemble freight trains before and after being assisted over the Continental Divide. The cost of constructing an overpass at this location is estimated to be $9 million (*Helena Transportation Plan*, 1993). North Benton Avenue, the major north-south route to the west of the project area, is also subject to frequent blockage due to heavy train traffic over its at-grade crossing with MRL's mainline. North Main is the only north-south arterial with overpasses over the MRL tracks, making it the most reliable travel corridor available to emergency vehicles. Congestion along North Main interferes with efficient use of this corridor by emergency vehicles and creates hazards for emergency vehicles and other vehicles.



Legend

1. St. Peter's Hospital
2. Eastside Fire Station
3. Police & Sheriff's Depart.
4. Westside Fire Station
5. National Guard Armory
6. Airport Fire Station & Police Operations
7. YMCA

Figure 4-16
Emergency Services

While the facility provides Helena's economy with a vital infrastructure component, it also forms a social barrier dividing residential areas located north of the corridor and locations of employment, schools, and other community services located south and east of the corridor. North Main Street is a major travel corridor for through traffic movements and the businesses aligning its north segment are primarily oriented toward the motorized public. The southern portion of the corridor contains several highly-used recreational facilities. These areas receive heavy use by children, especially the YMCA, the soccer and ballfields in the old city landfill area (Centennial/Bausch Park), and the city's outdoor swimming pool in Memorial Park. The Montana Power Company (MPC) and the National Guard Headquarters are major employers and attract substantial commuter traffic (see Figure 4-17). The MPC facility provides consumer services and serves as a staging area for local and regional operation and maintenance activities, and is both a trip attractor and generator. Turning movements to and from MPC, the National Guard, and recreational areas are difficult during peak travel periods. There is substantial pedestrian and bicycle movement back and forth across North Main by children traveling between the recreational areas, especially on Saturdays and in summers.

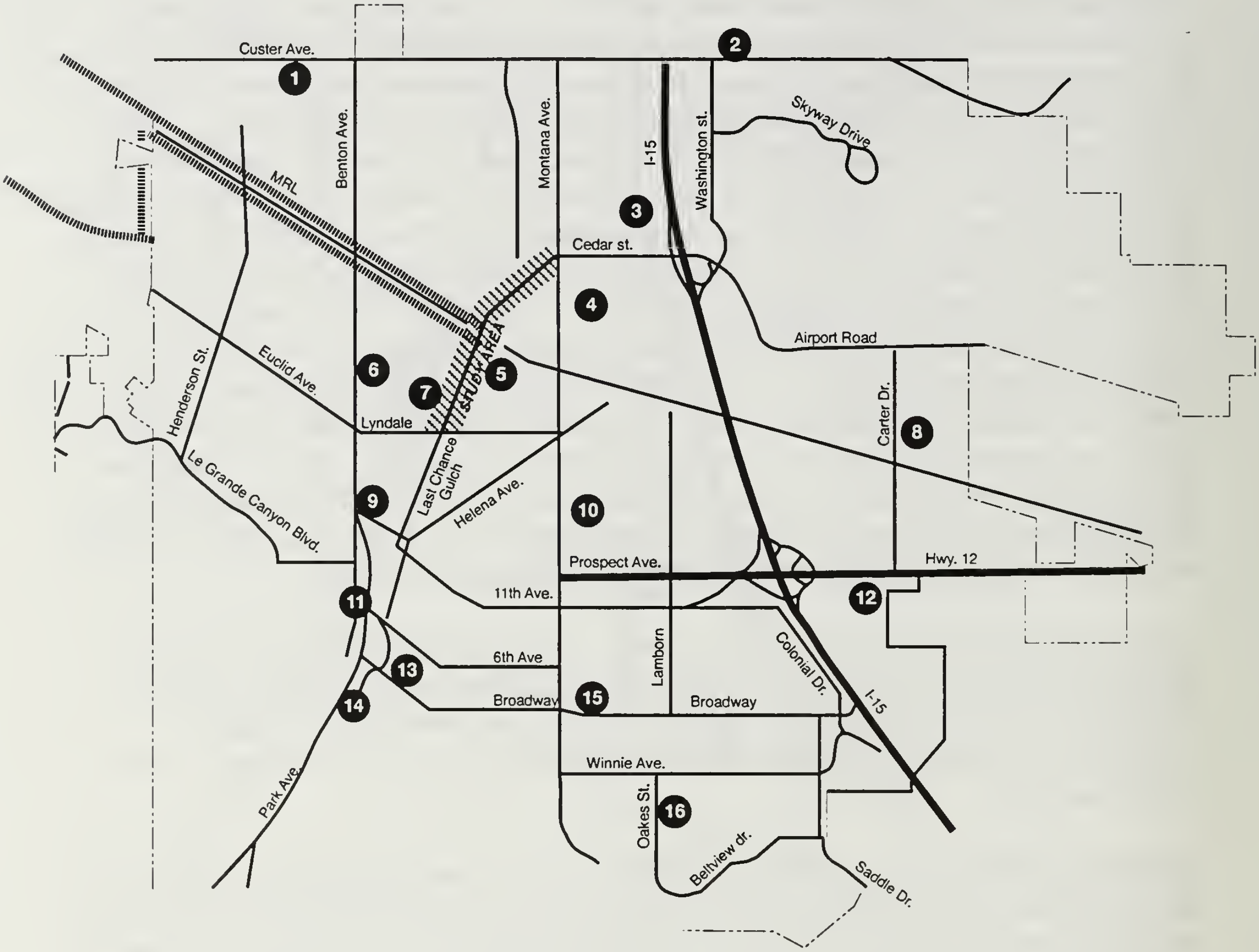
The northern portion of the North Main corridor supports numerous small businesses. Business development along this corridor is handicapped by traffic congestion and constraints to turning movements. Traffic congestion and constraints to turning movements also impair commercial vehicle access and egress to and from these North Main businesses.

During the public coordination described in Section 6.1, many people expressed concern about the barrier effect that North Main Street imposes upon the residential neighborhood to its north and to the general public. It was felt that many non-motorists are discouraged from using the facility for any reasons other than necessary trips and parents generally do not allow their young children near North Main Street without adult accompaniment.

4.4.2 Impacts

4.4.2.1 No Build Alternative

The No-Build Alternative will result in prolonged adverse social and economic effects within and beyond the immediate project study area. A continued rise in vehicular traffic along the existing facility will exacerbate the division between neighborhoods and community services located north, east, and south of the project study area. North Main will continue to be the most reliable north-south route for emergency vehicles. However, increasing traffic congestion along the corridor will elevate emergency vehicle response times and add to risk of accidents involving emergency vehicles.



Legend

1. Capital High School
2. Animal Shelter
3. U. S. Post Office
4. Lincoln School
5. Montana Power Co.
6. Carroll College
7. YMCA
8. City Shop Complex
9. Civic Center
10. Helena High School
11. City-County Bldg., Post Office & U.S. West Offices
12. Montana Dept. of Transportation
13. County Courthouse
14. Federal Bldg. & Public Library
15. State Capitol Complex
16. Deaconess Home for Children

North

Figure 4-17
Community Services

4.4.2.2 Preferred Alternative

The Preferred Alternative will improve social and economic conditions within and outside of the project corridor by providing safe facilities for pedestrians and bicyclists, improved operating conditions for automobile traffic, and a more aesthetically captive environment for people traveling within the area. The Preferred Alternative will improve community cohesion for surrounding areas by allowing greater accessibility between residential areas and community service locations for the majority of Helena citizens.

The Preferred Alternative could enhance the property values of adjacent businesses and residences near the corridor due to the proposed access management, pedestrian and bicycle facilities, and aesthetic improvements along the corridor. The improved accessibility to commercial areas and improved mobility for many consumers and commercial transporters resulting from each of the build alternatives will also result in overall benefits to the Helena area economy

Improvements to traffic flows and ease of turning will serve to reduce obstacles to new commercial investment in commercial land uses along North Main.

To the extent that North Main improvements will decrease travel times from suburbanizing areas of the Helena Valley, and may help to facilitate the continuation of this residential development pattern. However, the prevalence of rural-suburban residential development is likely to continue regardless of whether travel times to the CBD are improved.

Improvements to North Main will help to maintain the viability of Helena's central business district as a center of area commerce. Maintaining or improving vehicular access to downtown Helena will help to sustain existing businesses and encourage new commercial investment in the CBD. Enhancement of vehicle travel to downtown Helena will also encourage investment in the city's Great Northern Area redevelopment project.

4.4.2.3 Environmental Justice

On February 11, 1994, President Clinton issued Executive Order 12989 requiring federal agencies to incorporate Environmental Justice considerations into the NEPA planning process. The purpose of this order is to ensure that low income households, minority households, and minority business enterprises do not suffer a disproportionate share of adverse environmental impacts resulting from federal actions.

The study area does not include any residential areas that are dominated by low-income or minority residents.

None of the alternatives will result in adverse impacts to residential areas, including low income or minority properties. The alternatives will have no negative effects upon minority business enterprises. Therefore, the low income or minority communities will not bear a disproportionate share of any potentially adverse impacts associated with either the Preferred or the No Build Alternative.

4.4.3 Mitigation

No mitigation for socioeconomic impacts is necessary.

4.5 Right-of-Way

4.5.1 Existing Conditions

The existing right-of-way in the southern portion of the corridor is basically 21.34 meters (70 feet) and 30.49 meters (100 feet) in the northern portion of the corridor.

4.5.2 Impacts

4.5.2.1 No Build Alternative

The No-Build Alternative will have no right-of-way impacts.

4.5.2.2 Preferred Alternative

The following table lists the right-of-way impacts for the Preferred Alternative. Right-of-way impacts for 33 parcels is shown on Figure 4-18. Construction permits will be used for the construction of slopes outside of the right-of-way where the land can remain in private ownership after construction. It is estimated that 2.20 hectares (5.43 acres) of additional right-of-way will be needed. A strip of land 2.4 meters (7.9 feet) wide behind the curb is needed for roadway uses such as snow storage and signing. This requires additional width than currently exists in Memorial and Centennial/Bausch Parks. Numerous large trees will be included in this strip. Either right-of-way or a permanent easement can be acquired for this purpose, but the acquisition should stipulate that the trees are not impacted by the roadway construction and can not be removed. Construction Permits will be used where possible for the construction of slopes. It is estimated that 0.62 hectares (1.52 acres) of construction permits will be required.

No relocations will result from implementation of the Preferred Alternatives.

Table 4-7
Additional Right-of-Way Requirements

Number	Property	Type of Impact
1	National Guard Armory	Right-of-Way
2	Business	Right-of-Way
3	McGaffick's Auto Center, Inc.	Right-of-Way
4	B&B Lifetime Muffler Shop	Right-of-Way
5	Residence	Right-of-Way
6	The Donut Hole	Right-of-Way
7	Centennial/Bausch Park*	Right-of-Way/Construction Permit
8	Memorial Park*	Right-of-Way/Construction Permit
9	City of Helena Landfill	Right-of-Way
10	Montana Power Company	Right-of-Way
11	Montana Rail Link (Mainline and Spurline)	Right-of-Way
12	Sharbono	Right-of-Way
13	Skains Flooring	Right-of-Way
14	Residence	Right-of-Way
15	Lanning and Associates, Yvonne F. Knox	Right-of-Way
16	Knoxville, Charles Edgar Knox	Right-of-Way
17	Jerry's Highway Service	Right-of-Way/Construction Permit
18	Bob's Fine Cars	Construction Permit
19	Maria T. Landros - Columbia	Right-of-Way
20	Knox Flower Shop	Right-of-Way
21	Residence	Right-of-Way
22	Kev's Auto Sales	Right-of-Way
23	Tire-Rama	Construction Permit
24	Allen's Superstore	Right-of-Way/Construction Permit
25	Radke Property	Construction Permit
26	Formerly Mountain View Chevron	Right-of-Way
27	Business	Right-of-Way
28	Clover Leaf Dairy Products	Right-of-Way
29	Jolly O's Gas N' Go	Right-of-Way
30	Residence	Right-of-Way
31	Car Corner	Right-of-Way
32	Residence	Right-of-Way

* Park Properties

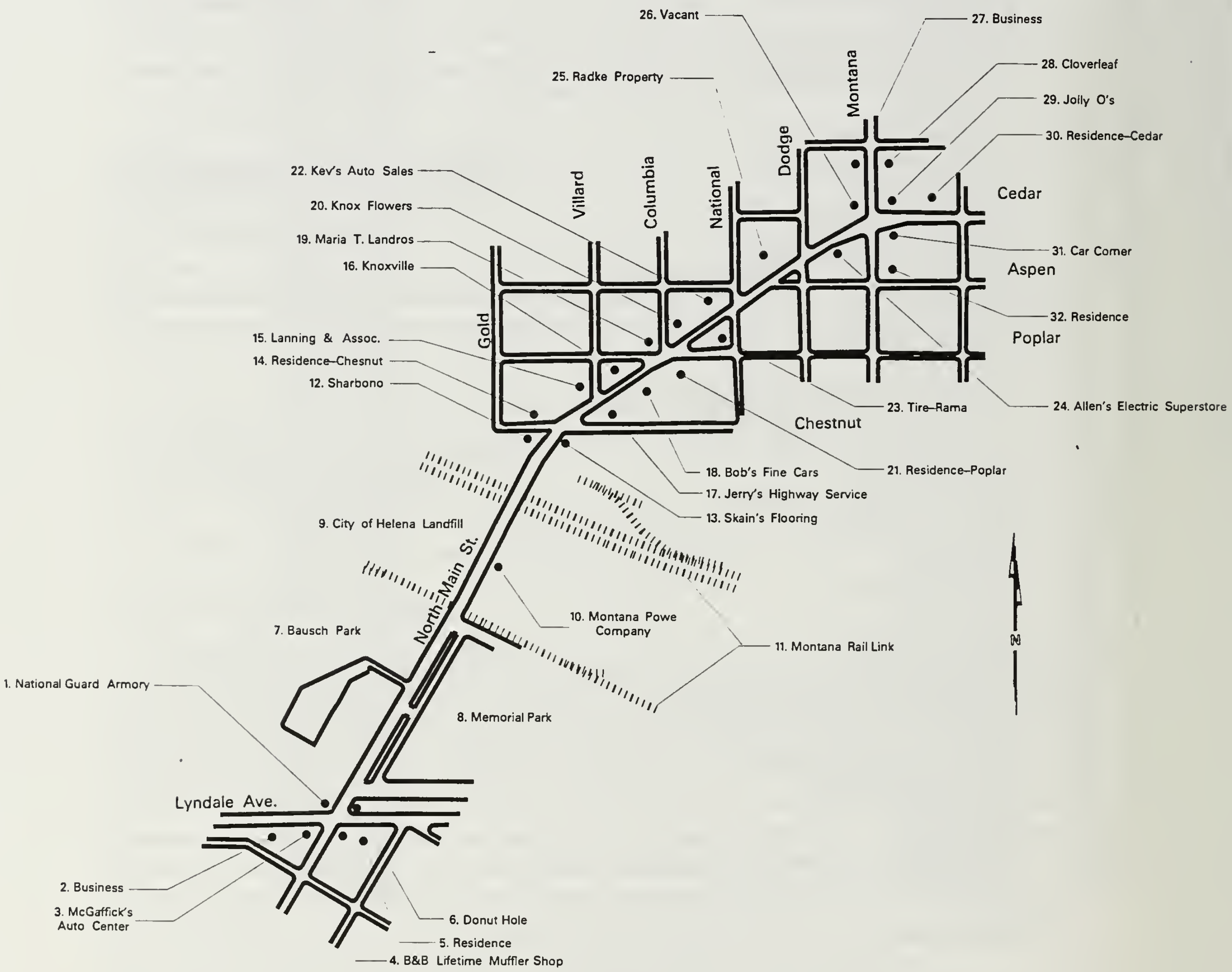
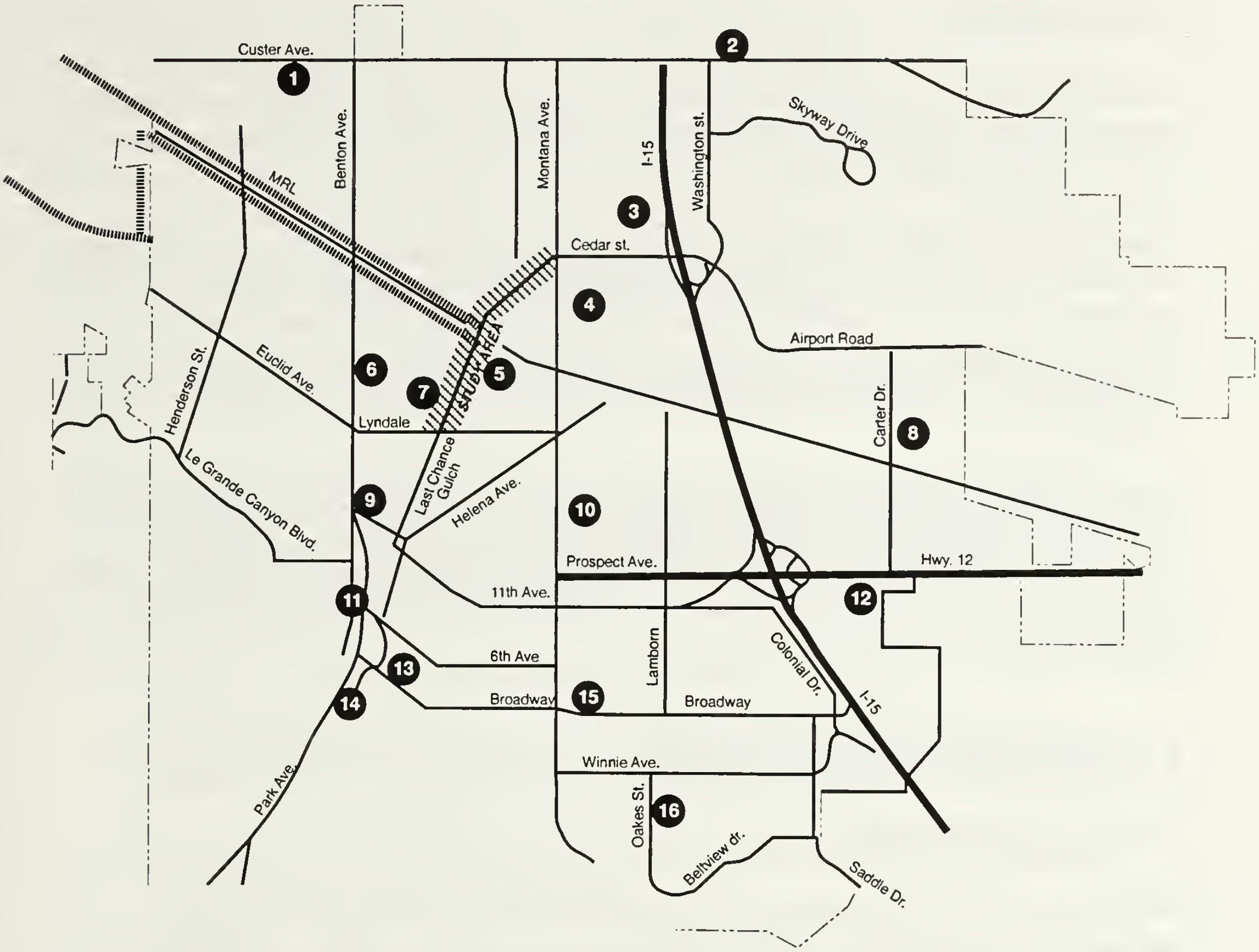


Figure 4-18

Right-of-Way Requirements of the Preferred Alternative



Legend

1. Capital High School
2. Animal Shelter
3. U. S. Post Office
4. Lincoln School
5. Montana Power Co.
6. Carroll College
7. YMCA
8. City Shop Complex
9. Civic Center
10. Helena High School
11. City-County Bldg., Post Office & U.S. West Offices
12. Montana Dept. of Transportation
13. County Courthouse
14. Federal Bldg. & Public Library
15. State Capitol Complex
16. Deaconess Home for Children

Figure 4-17
Community Services

4.5.3 Mitigation

To make property acquisition as equitable as possible, standards have been developed to ensure adequate consideration and compensation for persons whose property is required for public improvement projects.

Property which is required for construction of a federal aid highway will be subject to the provisions of the Public Law 91-646, as amended by Public Law 100-17. Public Law 91-646 us the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (as amended). This is a federal law. The Public Law 100-17 is the Surface Transportation Act of 1987 which amended certain provisions of P.L. 91-464. It is also a federal law.

Provisions of the current Intermodal Surface Transportation Efficiency Act (ISTEA) H.R. 2950 have included references to the Uniform Relocation Assistance Act and Real Property Acquisition Policies Act of 1970, and these provisions require compliance with Title VI of the Civil Rights Act of 1964 (H.R. 2950-34, Section 1017 Acquisition of Rights-of-Way).

4.6 Pedestrians and Bicyclists

4.6.1 Existing Conditions

North Main Street provides the City's most central grade-separated crossing of the railroad tracks and direct access to the downtown area, parks, and schools for Helena area pedestrians and bicyclists. Although commuter pedestrians and bicyclists presently use the facility on a daily basis, the existing demand for non-motorized use of North Main Street is highest among young people who routinely travel along or across North Main Street to access schools, recreation areas, or neighborhoods in the area. Despite the regular presence of foot and bicycle traffic, however, North Main Street lacks adequate, continuous facilities to accommodate pedestrians and bicyclists (Figure 2-3). The roadway itself forms a barrier to east-west pedestrian and bicycle travel throughout the corridor and particularly in the vicinity of Centennial/Bausch and Memorial Parks.

The 1993 Update of the Helena Area Transportation Plan states that, "As part of the overall goal of reducing vehicle miles traveled (VMT) in the Helena area, the use of walking and bicycling as means of transportation is to be encouraged by providing safe and efficient facilities and a positive social environment for pedestrians and bicyclists".

The current Transportation Plan identifies North Main Street as a High Priority improvement recommendation among 12 urban corridors in need of constructed facilities to encourage increased pedestrian and bicycle use and to provide connectivity between urban travel corridors and off-street recreation trails. The specific recommendation contained in the updated Plan is to, "Construct a 3 meter (9.8 foot) wide pedestrian/bike path along the northwest side of North Main from National to the YMCA entrance. Provide a 1.8-meter (5.9 foot) shoulder on the southeast side from Chestnut to National. Construct a spur pedestrian/bike path that loops under North Main on the south side of the southern railroad crossing, into the Memorial Park parking area".

The following general concerns regarding the safety of pedestrians and bicyclists in the North Main corridor were raised during the public coordination described in Section 6.1.

- The existing designated painted crosswalks within the corridor at Lyndale Avenue, the Bausch Park driveway, National Avenue, and Montana Avenue do not adequately alert drivers to the presence of pedestrians or bicyclists -- safer crossings are needed in these locations.
- There are no sidewalks along most of the corridor.
- The existing roadway shoulders do not provide safe separation from vehicular traffic along the corridor.
- Vehicles speeding through the frontage road at Memorial Park are a hazard to pedestrians and bicyclists in this area.
- The unlimited access to adjacent properties and driveways combined with a high number of uncontrolled vehicle turn movements in the north portion of the corridor is a hazard to pedestrians and bicyclists.

4.6.2 Impacts

4.6.2.1 No Build Alternative

The No-Build Alternative will continue to discourage pedestrians and bicyclists within the study area as vehicular traffic continues to increase without implementation of improvements to more safely accommodate existing foot and bicycle traffic. Without construction of safe connecting links in this major travel corridor, this alternative will do nothing to promote increased non-motorized travel within the urban area and may discourage more people from walking or riding bicycles within the corridor.

4.6.2.2 Preferred Alternative

The Preferred Alternative will benefit pedestrians and bicyclists by providing continuous sidewalks, safely visible crosswalks and bicycle paths that are safely detached or visible from vehicle lanes and which allow for connectivity with similar facilities linked to the North Main Street corridor.

The addition of two vehicle travel lanes will create a widened traffic and pavement barrier for people attempting to cross the roadway. The median will provide a refuge area for pedestrians crossing the roadway so that pedestrians will cross only two lanes of traffic at once.

4.6.3 Mitigation

No mitigation is necessary for impacts to pedestrians and bicycles.

4.7 Parks and Recreation

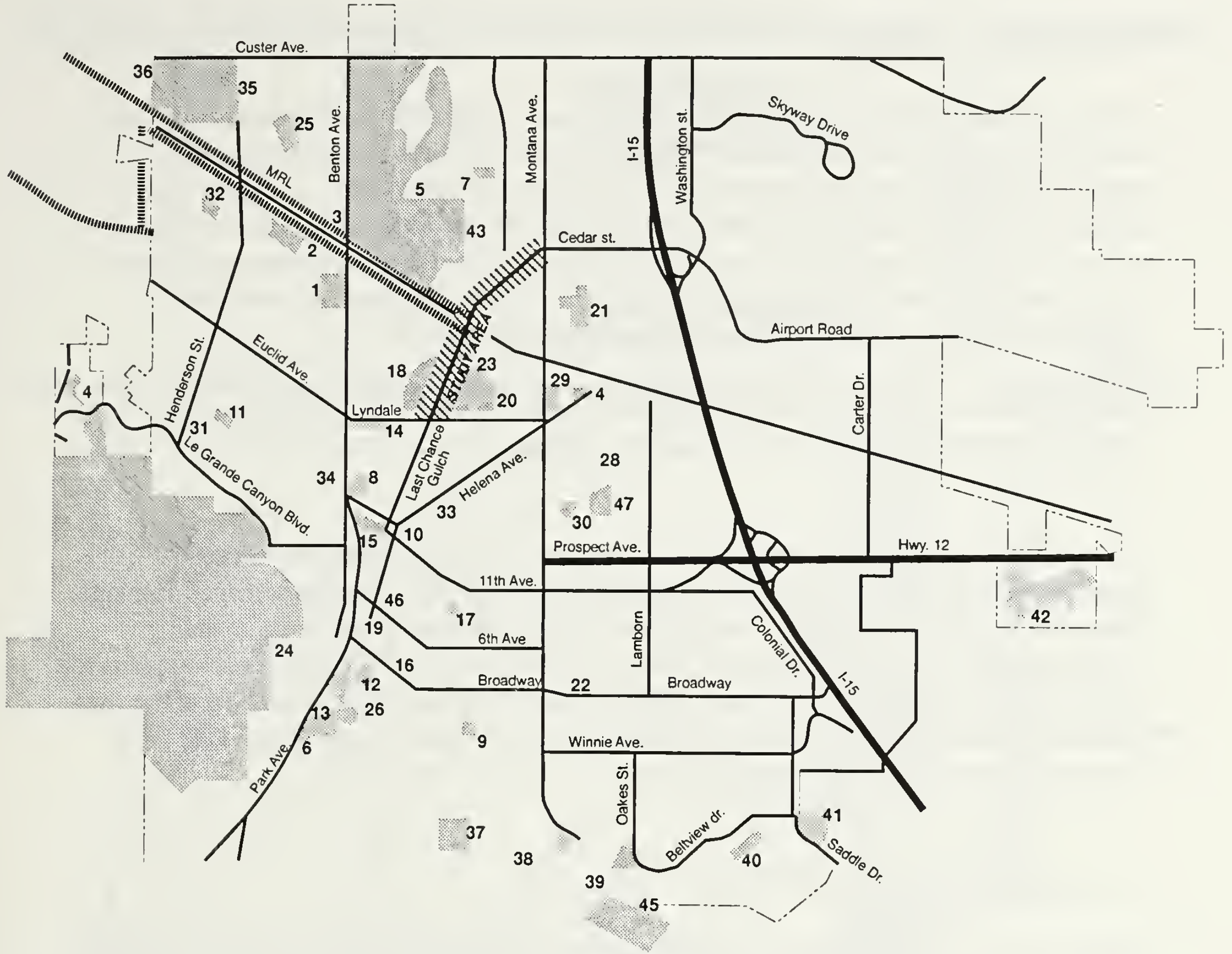
Section 4(f) sites are addressed in Section 5.0, Section 4(f) of this document. The “Nationwide” Section 4(f) Evaluation for minor usage of public parks, recreation land, and wildlife and waterfowl refuges is included in Appendix B.

4.7.1 Existing Conditions

The City of Helena has an extensive array of parks and recreation amenities spread out over the entire city. There are some 48 recognized facilities or sites for recreation under the City of Helena's jurisdiction. (These parks are shown in Figure 4-19.) Activities or services available at one or more of these sites include the following:

Concerts
Barbecues
Baseball
Basketball
Football
Tennis
Soccer
Golf
Hiking
Biking
Historic/Education
Volleyball
Horseshoes
Ice-skating
Jogging
Little League Sports
Open Play
Wading Pool
Picnicking
Playground Equip.
Restaurant
Softball
Swimming

Two of the 48 existing city owned parks are located directly across North Main Street from one another in the south segment of the corridor. Centennial/Bausch Park is located on the west side of the roadway directly north of the Montana National Guard Armory and south of the MRL spurline track. Memorial Park and Legion Field is located on the east side of North Main Street directly north of the Donut Hole and south of the MRL spurline track.



Legend

1. Benton Ave. Cemetery
2. Barney
3. Batch Fields
4. Beattie
5. Bill Roberts Golf Course
6. Bluff
7. Cherry Hills
8. Civic Center
9. Clinton
10. Cruse
11. Cunningham
12. Fire Tower
13. Heritage/Pioneer
14. Highway
15. Hill/Women's
16. KCAP
17. Kessler
18. Centennial/Bausch
19. Last Chance Mall
20. Kindrick Legion field
21. Lincoln
22. Lockey Park
23. Memorial
24. Mount Helena
25. Northwest
26. Pocha
27. Reeder's/Pioneer
28. Robinson
29. Sixth Ward
30. Stewart homes
31. Triangle
32. Waukesha
33. Wesleyan
34. Yond
35. Exchange
36. Ryan
37. Beattie Street
38. Diehl Heights
39. Oakes Street
40. Bull Run
41. Beltview
42. Sleeping Giant
43. Nature
44. Reber PUD
45. Mount Ascension
46. Constiution Park
47. Ramey Park
48. Centennial Park/Spring Meadow Park Trail (proposed trail around Centennial Park)

Figure 4-19
Parks Map

☐ Centennial/Bausch Park

Centennial/Bausch Park is located directly west and adjacent to the Preferred Alternative. It is made up of two parcels. Bausch Park was a 2.14 Hectares (5.3-acre) parcel, 76.25 meters (250 feet) wide by approximately 30.5 meters (100 feet) long. Adjacent is 7.49 hectares (18.5 acres) known as Centennial Park which was added to the park. The total park site is 9.63 hectares (23.8 Acres). The land is solely owned and managed by the City of Helena for use as public outdoor recreation space. Figure 4-20 shows the facilities available and configuration of Centennial/Bausch Park.

Functions and/or activities available within the boundaries of Centennial/Bausch Park are softball/baseball, football, soccer, horseshoes, jogging, little league, open play, picnicking and volleyball.

One vehicular access to Centennial/Bausch Park exists along North Main Street approximately half way between the north and south edges of formal landscaped frontage. Pedestrian access is informal all along this frontage as well as from the south and southwest across the vacant Great Northern property. Rails-to-Trails has existing plans to formalize access to and from the park along the proposed spurline trail that skirts the west and north sides of the park. Additional vehicle and pedestrian access is provided from Lyndale Avenue via the Armory parking area.

☐ Memorial Park and Legion Field

Memorial Park, situated directly east and adjacent to North Main Street, is approximately 6.08 hectares (15 acres) in size and fully developed. It is wholly owned and operated by the City of Helena. Figure 4-21 displays the layout and facilities present in Memorial Park.

The following functions and/or activities are available at the Memorial/Legion Park site; concerts, picnics/cookouts, semi-pro and professional baseball/softball, basketball, ice skating, open play, swimming, and volleyball.

Multiple vehicle access is provided to this park site. There is parking and/or travel lanes surrounding the entire perimeter of the park. The park is bounded on three sides by Memorial Drive with an additional circular drive along the edge of the Legion Field outfield. There are three access points from North Main Street; first at Memorial Drive at the southwest corner of the park, then halfway along the frontage median an entrance that lines up with the memorial itself. Finally at the north end near the swimming pool is the third entrance point. Pedestrian access is provided from all directions except the north which is limited by the MRL railroad tracks.

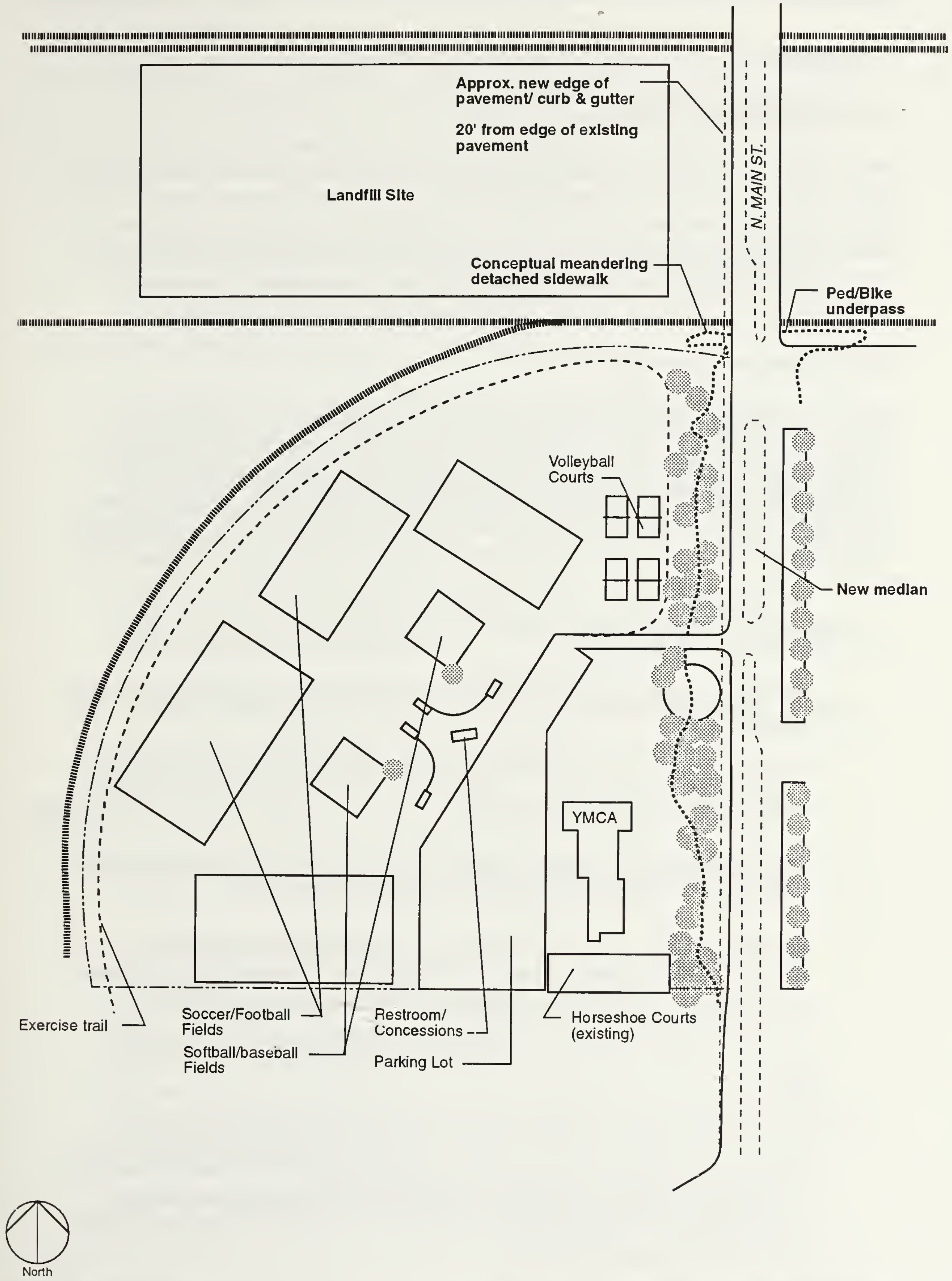


Figure 4-20
Bausch Park

4.7.2. Impacts

4.7.2.1 No Build Alternative

The No-Build Alternative will result in indirect adverse effects upon both park properties. These impacts will include noise and air quality effects that are discussed in greater detail in their respective sections of this document, increased congestion with its associated access implications and continuing pedestrian conflicts and recreational safety concerns. The No-Build Alternative will not create any physical impacts related to parks or recreation.

4.7.2.2 Preferred Alternative

Section 4(f) sites impacted as a result of the Preferred Alternative are addressed in Section 5.0, Section 4(f), of this document. Recreation impacts related to the Preferred Alternative are expected to be minimal. There are no known general activities or recreation facilities within the parks themselves that will be permanently compromised. It is expected that there will be temporary rescheduling and redirection of some activities during the period of construction. Construction Impacts are discussed in Section 4.18 of this document.

☐ Direct physical impacts include:

- Addition of curb and gutter along the length of the Bausch Park frontage where none exists now.
- Conversion of approximately 0.5 meter (1.64 feet) width of the grassy Bausch Park frontage to impervious pavement.
- Conversion of approximately 2 meters (6.56 feet) width of the west edge of the grassy Memorial Park median/island to impervious pavement.
- Addition of 335.5 meters (1,100 feet) of 3 meter (9.84 foot) meandering sidewalk located in Bausch Park at varying distance from the edge of pavement. This would replace 1023 square meters (11,000 square feet) of turf area.
- Complete removal of the stone cul-de-sac at the existing entrance to Bausch Park.
- Relocation of the central Memorial Park entrance to be located directly across from the existing Bausch Park access. (The accesses for the respective parks are currently off-set from each other). Refurbishment of existing entrance with plant materials and landscaping would result in no net loss of vegetated surface as a result of access relocation.

- Acquisition of a strip of land is required from Centennial/Bausch Park for road and roadway uses, such as snow storage and signs. The total acquisition for road and roadway purposes from Centennial/Bausch Park is 0.08 hectares (0.19 acres).The total Construction Permit required for slope construction from Centennial/Bausch Park is 0.32 hectares (0.80 acres).

- Acquisition of a strip of land is required from Memorial Park for road and roadway uses, such as snow storage and signs. The total acquisition for road and roadway purposes from Centennial/Bausch Park is 0.10 hectares (0.24 acres).The total Construction Permit required for slope construction from Centennial/Bausch Park is 0.21 hectares (0.53 acres).

- There are several trees that will be removed for the purposes of roadway construction. The tree row in the island along Memorial Park will remain largely intact with only one to two trees requiring removal. A number of trees will be contained within the strip designated for roadway purposes (signing & snow storage). The acquisition of this strip should be structured to preserve the tree row.

- Addition of 186 square meters (2000 square feet) of landscaped (pervious surfaced) area at the north end of the Memorial Park boulevard island to narrow and control access more efficiently.

- Addition of pedestrian / bicycle underpass at southern railroad bridge crossing.

- Addition of a raised median between the parks.

Indirect effects are listed below:

- Greater expanse of roadway for pedestrian to cross between parks and/or activities.

- Noise impacts (refer to Section 4.9).

- Rearrangement of parking and circulation along the Memorial frontage (between the island and the formal park).

- Reconfiguration of the pedestrian crossing. Pedestrians will have the option of using the grade separated crossing near the spurline or the at-grade crossing that would be at the existing location.

- Improved vehicular access and control, more efficient use of parking.

- Improved vehicular access and control, more efficient use of parking.
- The southern Memorial Park entrance will be right-in, right-out turning motion only. The middle and north access points will include southbound left turn bays from North Main Street.

4.7.3 Mitigation

Section 4(f) sites are addressed in Section 5.0, Section 4(f) of this document. Possible mitigation to adequately address the conversion of use at Centennial/Bausch and Memorial Parks consists of: (1) implementation of warning signs and improved visibility to accommodate at-grade crossings, (2) construction of a grade-separated crossing for park users, (3) inclusion of landscape buffering or berming, and (4) replacement of converted park lands.

A grade separated crossing is included in the recommended Preferred Alternative. Safety criteria related to the contracting of the grade-separated underpass located at the south railroad overpass.

- Must be wide enough to handle both pedestrian and bicycle traffic for present· and future conditions.
- Must be well lighted and well signed and marked.
- Must be designed to be well drained and well ventilated for the protection of users.
- Must be visually attractive and pleasing and flow easily from the trail on one side to the trail on the other.

Additional mitigation proposed for the Preferred Alternative could include:

- Replacement of trees on a one-to-one replacement.
- Provide pavement markings at the selected pedestrian at-grade crossings to provide additional driver awareness of pedestrian locations.
- Specific signage to inform drivers of pedestrian crossings.
- Specific signage to direct pedestrian traffic to grade separated crossing, providing at grade or grade separated choice to pedestrians.
- Provide pedestrian refuge within the median location for pedestrian crossing at main entrance.

The City of Helena, as the owner of both parks, is the agency with jurisdiction who has agreed with this mitigation (see the letter dated January 16, 1996, from the City of Helena in Appendix A).

4.8 Air Quality

4.8.1 Existing Conditions

The United States Environmental Protection Agency (USEPA) has standards for air pollutants. Those pollutants which are affected by motor vehicle emissions include ozone (O_3), carbon monoxide (CO), and particulate matter less than ten microns in diameter (PM_{10}). Helena is attainment for sulfur dioxide (SO_2), O_3, CO, and PM_{10}.

An analysis was conducted to determine if the PM_{10} standard for 24 hours could be violated in the future. This standard is 150 μg/m^3. Maximum 24-hour PM_{10} concentrations in Helena during 1993 and 1994 are presented in Table 4-8.

Table 4-8
Maximum 24-hour PM_{10} Concentrations in Helena During 1993 and 1994

Year	Month	Maximum 24-hour PM_{10} Concentration (μg/m^3)
1993	January	68
	February	67
	March	39
1994	January	70
	February	66
	March	68

4.8.2 Impacts

Traffic volumes are expected to increase approximately 40 percent between 1994 and 2017 for both the No-Build and Preferred Alternatives. (See Section 4.1 for details concerning existing and projected traffic volumes). The greatest 24-hour PM_{10} concentration during the winter of 1994 was 70 µg/m^3. Assuming that increases in PM_{10} concentrations are directly proportional to increases in traffic volumes, a 40 percent increase in PM_{10} concentrations would produce a maximum concentration of approximately 100 µg/m^3. This is well below the federal 24-hour standard of 150 µg/m^3. Therefore, it can be concluded that neither the No-Build nor the Preferred Alternative will cause the PM_{10} 24-hour standard to be violated, and will not cause any adverse air quality impacts.

4.8.3 Mitigation

No mitigation of air quality impacts are required.

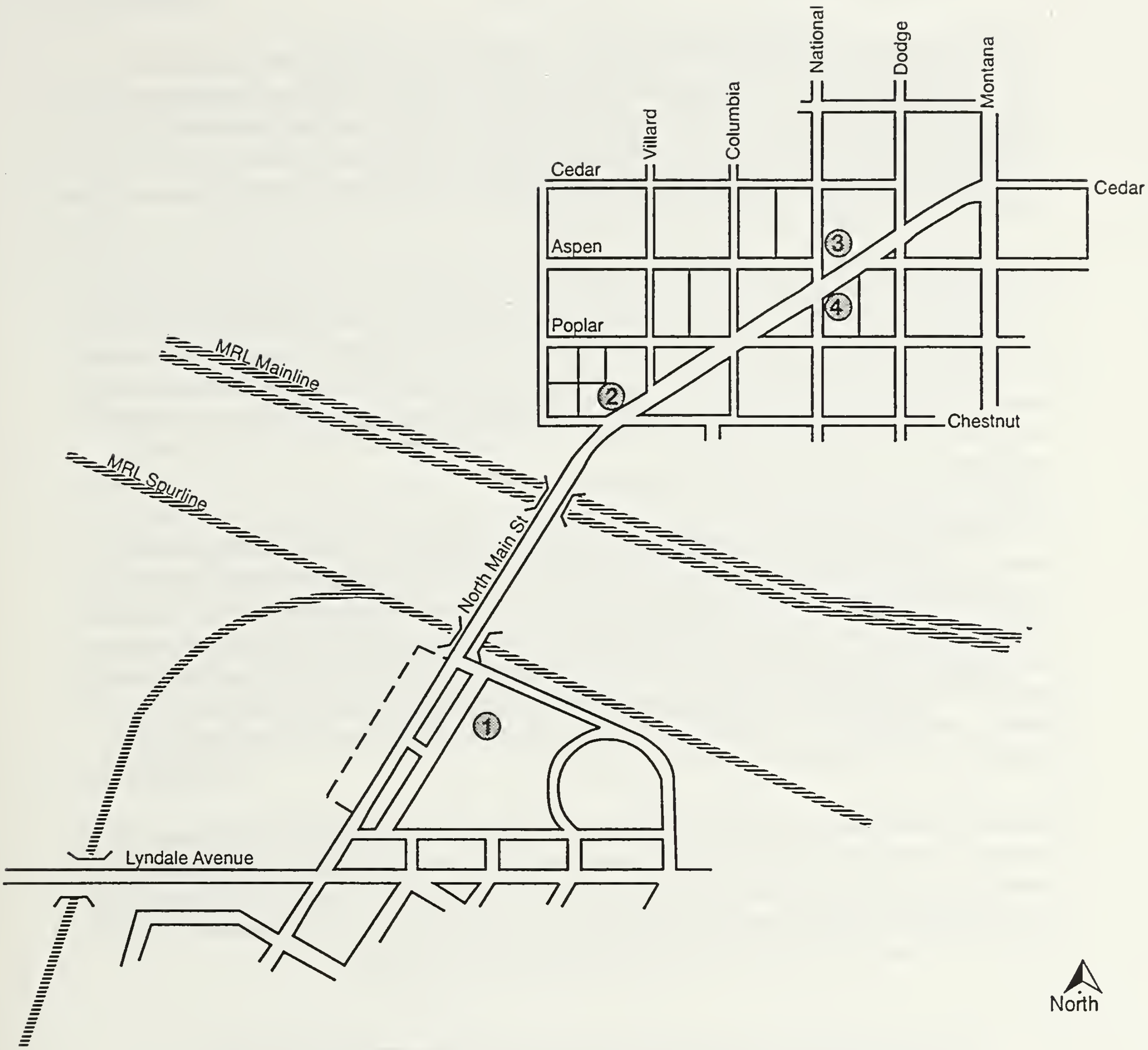
4.9 Noise

4.9.1 Introduction

The North Main Street corridor in Helena is primarily zoned commercial dispersed with private residences. Two parks exist at the south end of the project, Memorial Park which includes an amphitheater, and Centennial/Bausch Park.

The Federal Highway Administration Noise Abatement Criteria is 57 dBA for Activity Category A -- areas in which it is necessary to preserve extreme quiet; 67 dBA for Activity Category B which includes residential areas; and 72 dBA for Activity Category C which includes commercial areas. Only the amphitheater at Memorial Park may be considered to lie in Activity Category A.

Peak hour noise levels were measured in August 1994 at the most noise - sensitive areas using a Metrosonics db-308 Sound Level Dosimeter/Analyzer. To check the accuracy and precision of the data gathered, noise levels were measured at the same sites during approximately the same time frame, one week apart. The equipment was calibrated before and after each day's measurements. The sites used for this study include Memorial Park; a mobile home park; an apartment building located between to commercial businesses; and a residence located off Main Street, but bordering the commercial area. See Figure 4-21a for locations. During each 15-minute sound level measurement, traffic counts were tallied according to vehicle class.



● Noise Measurement Site

Figure 4-21a
Noise Measurement Locations

4.9.2 Existing Conditions

Ambient noise levels range from 55 to 70 Leq(h) dBA and are displayed in Table 4-9. Leq(h) is defined as the sound pressure level (usually in dBA) energy-averaged over a one-hour period[1]. The term dBA represents decibels measured with a frequency weighting corresponding to the A-scale on the standard sound level meter. The "A-Weighted" scale filters or removes sound frequencies undetectable by the human ear. The lower detection limit of the noise meter is 44 dBA.

The measured noise levels for the two separate days are the same or very close for each site except Site 1, Memorial Park. During the first sound level measurement on August 17, there was a "Kid's Day" event at Memorial Park. The swimming pool was brimming full with activity, and a large number of children were playing throughout the entire park. In addition, there was an unusual amount of traffic in the parking lot, ice cream vendors and pedestrians. The following week did not exhibit the same level of activity and is regarded as a more typical day at the park.

The measured noise levels are consistent with the computer-generated prediction noise levels using the traffic data gathered in the field. Table 4-10 compares the predicted noise levels with the measured levels, using the traffic data gathered in the field. At Sites 2 and 4, the predicted noise levels are 2 to 5 decibels lower than the field measurements. This is due to extraneous noises that the model cannot account for, such as barking dogs and idling parked trucks. Overall, the computer-generated noise levels closely if not exactly, match the field measurements. This comparison verifies the computer model's ability to predict traffic noise levels for the project.

The only exceedances of the Noise Abatement Criteria are for the residential areas closest to present centerline. At the Mobile Home Park, those units adjacent to North Main are currently experiencing noise levels of approximately 68 dBA. Present noise levels at Site 2, an apartment building sandwiched between two businesses, are approximately 70 dBA. The Noise Abatement Criteria for residential districts is 67 dBA.

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[1] U.S. Department of Transportation, Federal Highway Administration Highway Noise Fundamentals, September 1980, page 72.

4.9.3 Impacts

Design Year traffic noise levels were predicted using projected traffic volumes and the FHWA Traffic Noise Model. Results are displayed in Table 4-11. For the same site locations, at the same distances from centerline, noise level increases are minimal, on the order of 0 to 3 decibels. This is not considered a significant impact, nor will the future levels exceed the Noise Abatement Criteria for a commercial area. The largest impacts will be to the residential areas which are dispersed among the commercial developments, simply because those areas are already in exceedance of the Noise Abatement Criteria. Noise levels at the Amphitheater at Memorial Park are not predicted to rise above 56 dBA for the Design Year, which is one decibel higher than present noise levels at Peak Hour. Although 56 dBA is approaching the NAC for Activity Category A, it is not a substantial increase beyond present noise levels. In addition, it is not likely that the Amphitheater would be used during peak hour traffic flow.

Present noise levels range from 55 to 70 dBA along the project corridor. Noise impacts are occurring at residential dwellings/areas along the project corridor, which is dominated by commercial development. If, in the future, this corridor is re-zoned solely for commercial development, the Design Year noise levels will be well below the Noise Abatement Criteria for Activity Category C, Developed Lands. Design Year noise levels are not expected to rise more than 3 dBA over existing levels anywhere along the project. A gradual increase in noise of 3 decibels over 20 years will be imperceivable. Overall, traffic noise increases will be insignificant with the construction of this project.

4.9.4 Mitigation

No mitigation of noise impacts are required.

Table 4-9
Existing Noise Levels, Measured

Date: August 17, 1994

Site	Time (pm)	Distance from CL	Hourly Auto Volume	Hourly Total Truck Volume	Measured Noise Level Leq dBA	Remark
1	3:41	77 m (252.64')	1268	76	58	Memorial Park, "Kids Day"
2	4:08	10 m (32.81')	1524	48	70	Apartment building in commercial area
3	4:37	52 m (170.61')	1365	40	59	Residence, includes side street traffic
4	5:05	18 m (59.06')	1512	40	68	Mobile Home Park

Date: August 24, 1994

Site	Time (pm)	Distance from CL	Hourly Auto Volume	Hourly Total Truck Volume	Measured Noise Level Leq dBA	Remark
1	4:26	77 m (252.64')	1328	52	55	Memorial Park on a typical day
2	4:02	10 m (32.81')	1412	44	70	Apartment building in commercial area
3	3:37	52 m (170.61')	1185	48	59	Residence, includes side street traffic
4	5:05	18 m (59.06')	1176	20	68	Mobile Home Park

Table 4-10
Predicted vs. Measured Noise Levels

Site	Predicted Noise Level (Leq dBA) Aug 17/Aug 24	Measured Noise Level (Leq dBA) Aug 17/Aug 24	Remark
1	56/55	58/55	Park usually busy with kids
2	68/68	70	Dog yapping, cars pulling off gravel driveway
3	59/59	59	
4	64/63	68	Heavy truck idling nearby for a short time

Table 4-11
Design Year Predicted Noise Levels

Hourly Auto Volume - 1914; Hourly Total Truck Volume - 55

Site	Distance meters (feet)	Predicted Noise Level (Leq dBA)
1	77 (257.64')	56
2	10 (32.81')	70
3	52 (170.61')	62
4	18 (59.06')	67

4.10 Water Resources/Quality

4.10.1 Existing Conditions

There are no surface water features located adjacent to or within the boundaries of the study area. This includes the absence of wetlands, streams, creeks, lakes or standing water.

4.10.2 Impacts

4.10.2.1 No Build Alternative

The primary water resources or water quality issue is:

- Increased impurities in stormwater runoff water from increased traffic.

Due to the lack of water features within the project area, the overall impacts of storm water runoff for the No Build Alternative is minimal.

4.10.2.2 Preferred Alternative

Two issues related to water resources or water quality are:

- Increased impurities in stormwater runoff water from increased traffic, increased impervious surface and/or increased maintenance activities.
- Sediment loading during and after construction activities due to the exposure of bare substrate.

Due to the lack of water features within the project area, the overall impact of storm water runoff for the Preferred Alternative is minimal.

4.10.3 Mitigation

Throughout the construction phase the use of procedures described in the MDT Highway Construction Standard Erosion Control Work Plan will be implemented.

4.11 Wetlands

4.11.1 Existing Conditions

Determinations related to wetlands were made from a combination of aerial photography interpretation using 1"=100' photos of the corridor, site reconnaissance and reference to the 1981 North Last Chance Gulch EIS. Appendix C presents the biological impacts and wetland finding for the proposed project.

Additional biological information was provided by the Montana Natural Heritage Office (Natural Resource Information System).

There are no wetlands adjacent to or within the boundaries of the study area.

4.11.2 Impacts

There are no impacts upon wetlands for both the No-Build and Preferred Alternative.

4.11.3 Mitigation

No wetland mitigation is required.

4.12 Wildlife

4.12.1 Existing Conditions

The following agencies were contacted with regard to potential wildlife concerns within the corridor:

- United States Fish and Wildlife Service (Montana Field Office)
- Montana Department of Fish Wildlife and Parks
- Montana Natural Heritage Office (Natural Resource Information System)
- City of Helena

Copies of written coordination are provided in Appendix A of this document. Determinations for wildlife concerns were made from a combination of aerial photography interpretation using 1"=100' photos of the corridor, site reconnaissance and reference to the 1981 North Last Chance Gulch EIS.

Additional biological information was provided by the Montana Natural Heritage Office (Natural Resource Information System).

There are no creeks, streams or rivers adjacent to or within the study area thus limiting most wildlife species to those found in upland habitats. Additionally, the project is located in an urban corridor limiting the potential for wildlife even more. However, within these constraints, there is a limited variety of wildlife in the study area. This minimal wildlife is mostly associated with the habitat provided in the two parks adjacent to North Main Street. The following is a list of species that may be encountered within the study area:

Birds	**Mammals**
Sparrows	Colombian Ground Squirrels
Warblers	Pine Squirrels
Corvids	Variety of Mice
Gulls	Pocket Gophers

The existing trees located in and around (Centennial/Bausch and Memorial/Legion) parks are of particular use to nesting birds during the spring.

4.12.2 Impacts

4.12.2.1 No-Build Alternative

The No-Build Alternative will have no additional impacts upon wildlife.

4.12.2.2 Preferred Alternative

For the Preferred Alternative, both short and long term impacts to wildlife will be negligible. Within the parkland portion of the study area, several trees will be removed. No wildlife habitat will be impacted elsewhere throughout the corridor. No fisheries or aquatic habitat exist within the study area, therefore no fisheries or other aquatic species will be impacted.

Temporary construction noise and dust may cause short term displacement of wildlife for the duration of the construction period. Following completion of construction activities the existing wildlife can be expected to reoccupy the adjacent habitat.

4.12.3 Mitigation

Mitigation related to the impacts on wildlife includes the replacement of trees that will be removed.

4.13 Floodplains

4.13.1 Existing Conditions

Floodway and Flood Boundary maps provided by the Federal Emergency Management Agency (FEMA). These maps were revised as of April 1981. No flood prone areas, areas within the 100 year floodplain cross or exist adjacent to the North Main Street corridor. Refer to Figure 4-22 for the location of the closest 100-year floodplains.

4.13.2 Impacts

There will be no 100 year floodplain involvement for both the No-Build and Preferred Alternatives.

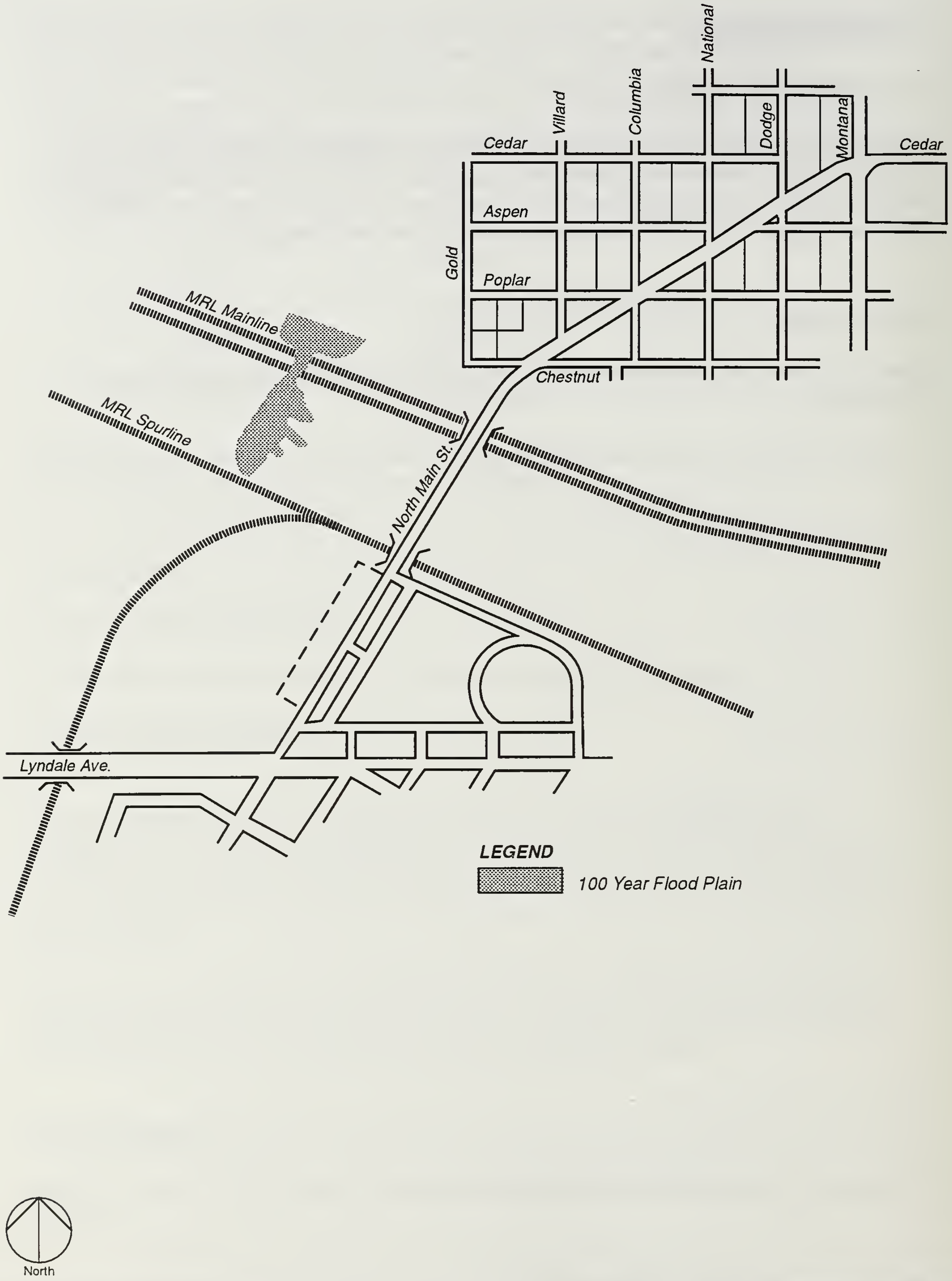


Figure 4-22
100 Yr. Flood Plain

4.13.3 Mitigation

No floodplain mitigation is required.

4.14 Threatened and Endangered Species

4.14.1 Existing Conditions

The US Fish and Wildlife Service (USFWS) was contacted to determine the listed threatened or endangered species that may be present in the project area. A copy of the USFWS letter (March 30, 1994) is included in Appendix A. No threatened or endangered species were identified by the USFWS.

4.14.2 Impacts

No impacts will occur to any threatened or endangered species for both the No-Build and Preferred Alternatives.

4.14.3 Mitigation

All powerline relocations will be constructed and raptor-proofed in accordance with Raptor Research Report No. 4 (Raptor Research Foundation, 1981).

4.15 Cultural Resources

The "Nationwide" section 4(f) evaluation for minor impacts on historic site, excluding historic bridges are included in Appendix B.

4.15.1 Existing Conditions

Pursuant to Section 106 of the National Historic Preservation Act (NHPA) (as amended) and the Advisory Council on Historic Preservation's regulations 36 CFR Part 800, a pedestrian survey was undertaken on May 26 and 27, 1994 by Ethnoscience in the project corridor to determine the potential for impacts to historic resources.

All buildings that faced North Main Street between Lyndale Avenue and Montana Avenue and were constructed prior to 1948 were inventoried. Overpass bridges and 61 meters (200 feet) of rail lines to either side of the bridges were also recorded.

In addition to the on-site survey, a cultural research file search was requested from the State Historic Preservation Office (SHPO) in Helena, with no resources identified within the project corridor. Cultural resource reports in the SHPO's CRABS library and materials in the National Register vertical files were also reviewed.

All historic properties were evaluated as to their significance according to the National Register Criteria of Evaluation as set forth in Bulletin 15 (NPS 1991). Eligibility for inclusion on the National Register of Historic Places (NRHP) is based on NRHP criteria and the resource's integrity (36 CFR Section 60.4).

No prehistoric archaeological resources were observed within the project corridor during the cultural resource inventory. The results of the inventory included eleven historic sites which were identified and recorded including one site which had been previously recorded and one site which had been previously determined to be eligible.

Of the eleven sites encountered, two railroad segments (24LC1139 and 24LC1192) are recommended as eligible for listing in the NRHP under Criterion A for their historic association with the development of rail transportation in Montana and socio-economic development of the agricultural and mining industries in the region. The two railroad overpass bridges (24LC1158 and 24LC1199) within the project corridor were determined ineligible for listing in the NRHP and SHPO concurred on August 21, 1996. See Appendix A for SHPO correspondence. The Montana National Guard Armory located at the intersection of Lyndale and North Main is eligible for listing in the NRHP under Criterion C for its architectural Art Deco style. The remaining six historic sites consisting of residences and commercial buildings identified in the project corridor are recommended as not eligible for listing in the NRHP.

4.15.2 Impacts

4.15.2.1 No Build Alternative

The No-Build Alternative will have no impacts on historic or archaeological resources.

4.15.2.2 Preferred Alternative

The Preferred Alternative will have no impacts to archaeological resources. Section 4(f) sites impacted as a result of the Preferred Alternative are addressed in Section 5.0, Section 4(f) of this document.

The Preferred Alternative will take land and one tree in front of the Montana National Guard Armory for paving and affect parking and access to that building. The SHPO has concurred with the recommendation of a No Adverse Effect to this eligible site. (See SHPO correspondence in Appendix A). The Advisory Council on Historic Preservation (ACHP) has issued their concurrence with the No Adverse Effect determination. (See correspondence in Appendix A).

The Montana SHPO has concurred on October 21, 1994, with the recommendation of ineligibility of the six residential and commercial sites and the recommendation of eligibility of the two railroad segments. The Preferred Alternative will not impact the two railroad segments. The SHPO has concurred on November 28, 1995, with the recommendation of a No Effect to the bridge segments (See SHPO and ACHP correspondence in Appendix A).

4.15.3 Mitigation

Should any archaeological artifacts become exposed during construction, work should be halted and the MDT Staff Archaeologist contacted for further evaluations per MDT Standard Construction Specifications.

4.16 Hazardous Materials

4.16.1 Existing Conditions

Properties located within and adjacent to the existing North Main Street right-of-way corridor were evaluated based upon available information on current and historic land use, recorded environmental incidents, and conditions observed during a site investigation conducted in December, 1993. A Phase I Hazardous Materials Assessment was prepared to document the results of this evaluation. The purpose of this assessment was to identify areas potentially impacted by hazardous material release(s) along the study corridor resulting from current or previous use of adjacent property and to identify sites that need further evaluation (Phase II Assessment) after the final design specifications have been completed for the project.

Eighteen locations of potential environmental concern are identified in Table 4-12 and shown on Figure 4-23. A ranking of HIGH, MODERATE, or LOW was assigned to each site to assist in determining where a Phase II investigation may be required. HIGH indicates an environmental impact has been documented or is strongly suspected and would likely affect the project; MODERATE indicates an environmental impact has been documented or is suspected and may affect the project; and LOW indicates a suspected or documented environmental impact that is not expected to affect the highway reconstruction project.

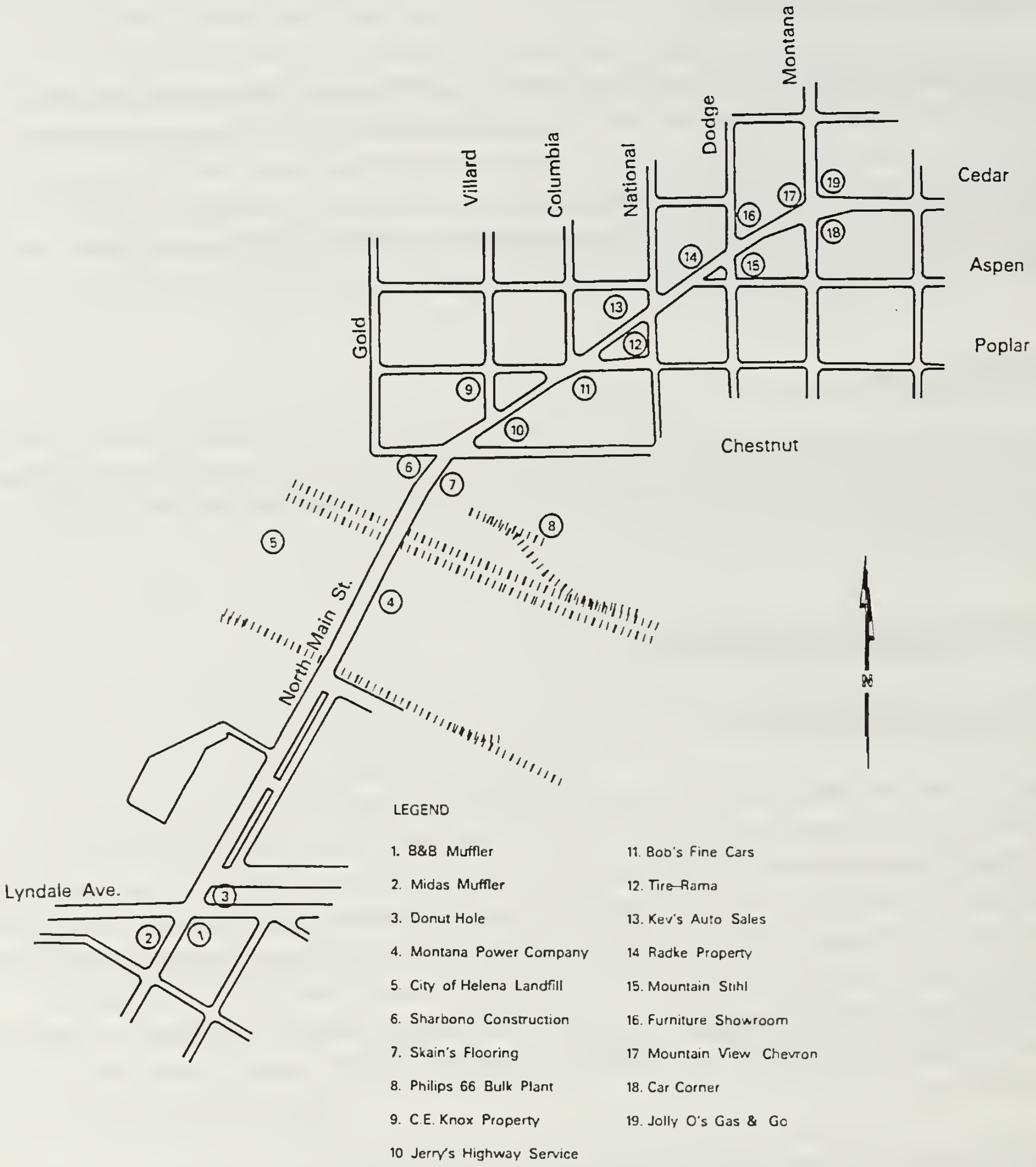


Figure 4-23

Potential Hazardous Waste Locations

Table 4-12
Areas of Potential Environmental Concern

Site No.(1)	Facility Name	Former Use	Potential Contaminant	Likelihood of Impact(2)	Remarks
1	B&B Muffler 1023 Last Chance Gulch	Gasoline service station	Petroleum hydrocarbons, solvents, waste oil	Low	Tanks have been removed but no soil testing performed to determine whether leaks occurred. Site is located on south side of intersection; therefore, impact to project is considered low.
2	Midas Muffler 1020 Last Chance Gulch	Gasoline service station	petroleum hydrocarbons, solvents, waste oil	Low	Some tanks have been closed in place. Petroleum-affected soil likely exists. Site is located on south side of intersection; therefore, impact to project is considered low.
3	Donut Hole 20 Lyndale Avenue	Gasoline service station	Petroleum hydrocarbons, solvents, waste oil	High	Tanks have been removed but no soil testing performed to determine whether leaks occurred. Phase II borehole should target area of site with N. Main Street frontage.
4	Montana Power Company 1315 N. Main St.	Gas works	Petroleum hydrocarbons, solvents, waste oil	High	Area of site along N Main Street was gas refinery for over 50 years. Phase II borehole should target this area to determine potential impacts.
5	Helena Landfill	--	Volatile organic compounds	Low	Soil contamination along N. Main St. not likely; however, groundwater contamination may exist beneath this area of project.
6	Sharbono Construction 1826 N. Last Chance Gulch	--	Petroleum hydrocarbons, solvents, waste oil	Low	Equipment maintenance and fuel dispensing activities at this site appear to be out of N. Main Street right-of-way.
7	Skains Flooring 1825 N. Last Chance Gulch	Equipment dealership	Petroleum hydrocarbons	Low	UST operated along N. main Street; however, soil testing indicated no leaks occurred.
8	Phillips 66 Bulk Plant 1804 Columbia Avenue	Bulk petroleum storage	Petroleum hydrocarbons	Low	Underground piping was removed and soil testing proved system did not leak. Releases from former above-ground tank systems are environmental concern but their location east of N. Main Street right-of-way should not affect project.
9	C.E. Knox Property	Greenhouse	Petroleum Hydrocarbons	Low	UST was removed and soil testing proved tank system did not leak. Releases from former above ground tank systems are environmental concerns north of North Main Street right-of-way.
10	Jerry's Hi-Way Service 1901 N Main St.	Gasoline service station	Petroleum hydrocarbons, solvents, waste oil	High	Existing USTs may be within N. Main Street right-of-way. No leaks have been documented from UST systems; however, spills and overfills may have impacted soil within project. Phase II borehole should target this area for potential impacts.

Table 4-12
(continued)

Site No.(1)	Facility Name	Former Use	Potential Contaminant	Likelihood of Impact(2)	Remarks
11	Bob's Fine Cars 1930 N. Main St.	--	Waste oil	Low	Waste oil activities appear to be out of N. Main St. right-of-way.
12	Tire-Rama 2025 N. Main St.	Gasoline service station	Petroleum hydrocarbons, solvents, waste oil	High	Tanks from old service station may still be in ground and within N. Main St. right-of-way. Metal detector survey may be needed and Phase II borehole should target this area to determine potential impacts.
13	Kev's Auto Sales,2038 N. Main St.	--	Waste oil	Low	Automotive servicing activities do not appear to take place on property.
14	Radke Property 2100 N. Main St.	Gasoline service station	Petroleum hydrocarbons, solvents, waste oil	High	Location of tanks in ground is North of N. Main St. right-of-way. Spills and overfills around former fuel dispensing area may have impacted project soil. Phase II borehole should target this area to determine potential impacts.
15	Mountain Stihl 2101 N. Main St.	Farm implement storage yard	Waste oil, solvents	Moderate	Equipment maintenance activities may have impacted soil along N. main St. right-of-way. Soil staining was evident in aerial photographs.
16	Furniture Showroom 2200 N. Main St.	Automobile dealership	Petroleum hydrocarbons, solvents, waste oil	Low	Automotive maintenance activities occurred out of N. Main St. right-of-way. Soil testing during UST closures indicated leaks did not occur.
17	Mountain View Chevron 1130 Cedar St.	Gasoline service station	Petroleum hydrocarbons, solvents, waste oil	High	Tanks have been removed from ground and soil testing determined that leaks had not occurred. Spills and overfills at former fuel dispensing area may have impacted project soil. Phase Ii borehole should target this area to determine potential impacts.
18	Car Corner 1201 Cedar Street	Gasoline service station	Petroleum hydrocarbons	Low	Tanks were removed but soil samples not collected to determine whether leak had occurred. However, site is at east end of intersection and is not expected to impact project.
19	Jolly O's Gas 'N' Go 1200 Cedar Street	Gasoline service station	Petroleum hydrocarbons	Low	Documented soil and groundwater contamination. Site is located on east end of intersection which will not likely impact project.

(1) Site No. is keyed to number shown on Figure 4-23.

(2) Likelihood of environmental impact as follows:

High: Indicates an environmental impact has been documented, or is strongly suspected and would likely affect the N. Main Street reconstruction project.

Moderate: Indicates an environmental impact has been documented or is suspected and may affect the reconstruction project.

Low: Indicates a suspected or documented environmental impact that is not expected to affect the highway reconstruction project.

4.16.2 Impacts

4.16.2.1 No Build Alternative

The No-Build Alternative will have no adverse effects upon potential hazardous materials sites identified in the Phase I investigation.

4.16.2.2 Preferred Alternative

A Phase II Investigation was completed by Maxim Technologies in July 1996. One site detected levels of petroleum well below the Montana Department of Environmental Quality Guidelines. Investigation of all other sites did not indicate the presence of soil contamination. Based on the Phase II Investigation, the Preferred Alternative will not impact hazardous waste.

4.16.3 Mitigation

Based on the Phase II Investigation's finding, no hazardous materials mitigation will be required for this project.

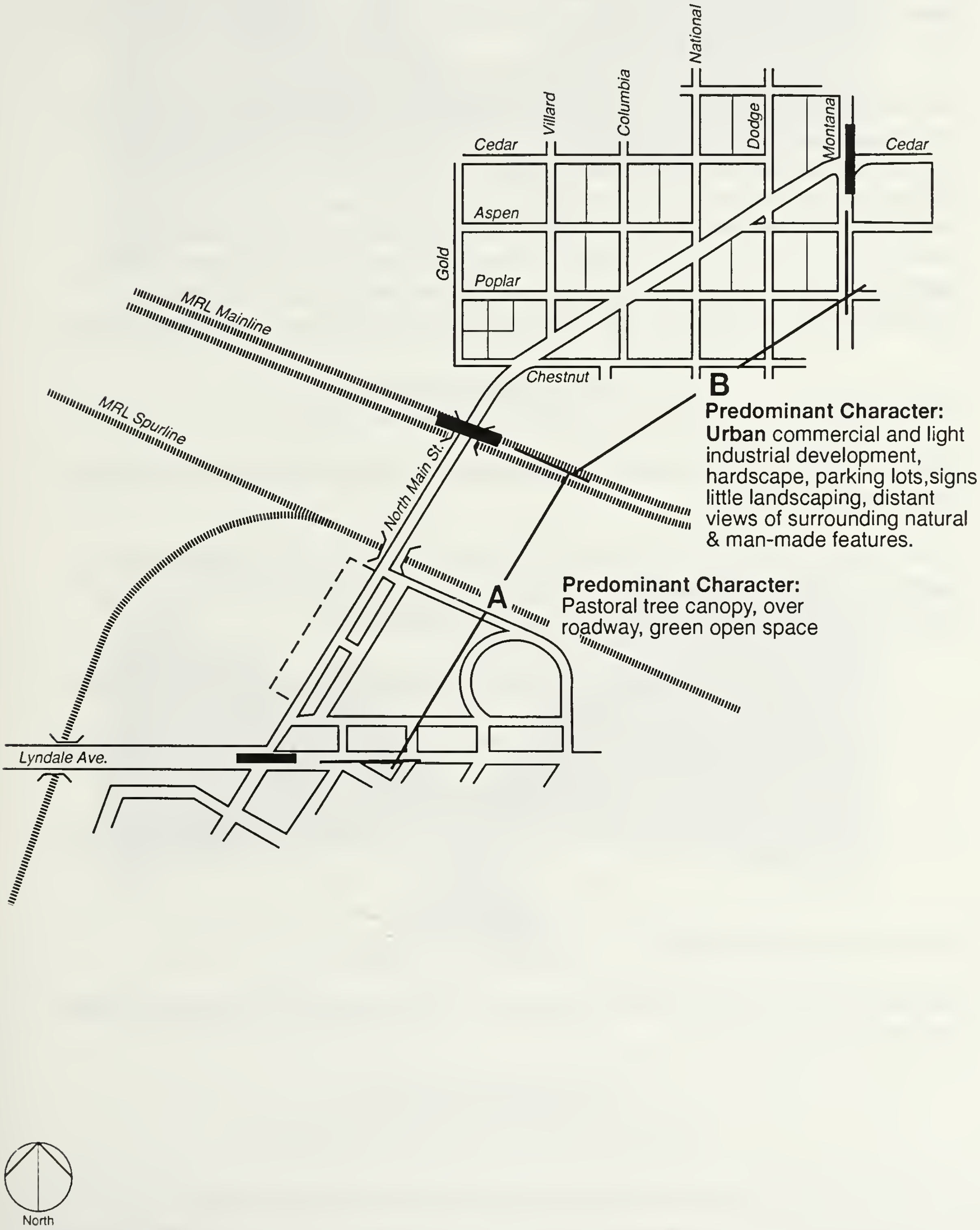
4.17 Visual

The importance of visual quality to the Helena community is reinforced by a Visual Appearance Goal in the City of Helena's Comprehensive Plan. This goal reads: "promote a diverse environment that is visually, aesthetically and physically pleasing and stimulating." The Helena Transportation Plan discusses the value of landscaping in a transportation system to directly improve the quality of that system and help that system to more completely meet the broader needs of the community. The City's Transportation Plan discusses how to meet the needs of the Helena urban area transportation system for landscaping and suggests general actions such as: 1. Integrating landscaping into construction, 2. Developing landscaping standards for all categories of roads, 3. Developing corridor master plans, 4. Creating "Welcome" signs at key entry locations and 5. Using planted rather than paved medians and margins.

4.17.1 Existing Conditions

The visual character of the Helena area can be generally described as low lying urban and residential development surrounded by mountain ranges and forest land. The Continental Divide (Rocky Mountains) lies to the west and the Big Belt Mountains lie to the east and Mount Helena lies to the southwest. The visual character of the City of Helena and its surrounding environs reflects the area's history in the mining and extractive industries. There are many remaining old buildings constructed with large rusticated stone blocks.

North Main Street serves as a key entrance or "gateway" to the City of Helena from Interstate 15, the Helena Regional Airport, and growing areas to the city's north and east. The corridor offers travelers a range of views which both enhance and detract from the aesthetic character of the surrounding area. The visual character of North Main Street is composed of two visually distinct segments shown on Figure 4-24. The first segment is from Lyndale Avenue north to the MRL mainline overpass. This segment is characterized predominantly by two parks (Centennial/Bausch Park and Memorial Park) which provide an overhead canopy of trees and green open space on both sides of the street. A public building (the Montana National Guard building) sits on the northwest corner of Lyndale Avenue and North Main Street, it is a dominant building and is set back from the corner with green open space and a small parking lot between the building and North Main Street.



Predominant Character:
Urban commercial and light industrial development, hardscape, parking lots,signs little landscaping, distant views of surrounding natural & man-made features.

Predominant Character:
Pastoral tree canopy, over roadway, green open space

Figure 4-24
Visual Character Map

Foreground views from this segment of the corridor include large trees and open space, small parking lots, and overhead utility lines. Middle ground views include the MRL railroad spurline and mainline corridors and Carroll College. Distant views include Mt. Helena and the Big Belt Mountains to the south and views of the Rocky Mountains to the north.

The visual character of the north segment of North Main Street is predominantly urban with commercial and light industrial development along the corridor and residential development within a block of North Main Street. Foreground views include views of parking lots, parked autos, sparse landscaping, business signage and building fronts, overhead utility lines, and a variety of signs. Middle ground and distant views are generally interrupted by billboard signs and buildings along this segment of the corridor. Middle ground views include occasional views into residential areas. Distant views include the Rocky Mountains to the north and west and Mt. Helena to the south (Figure 2-2).

4.17.2 Impacts

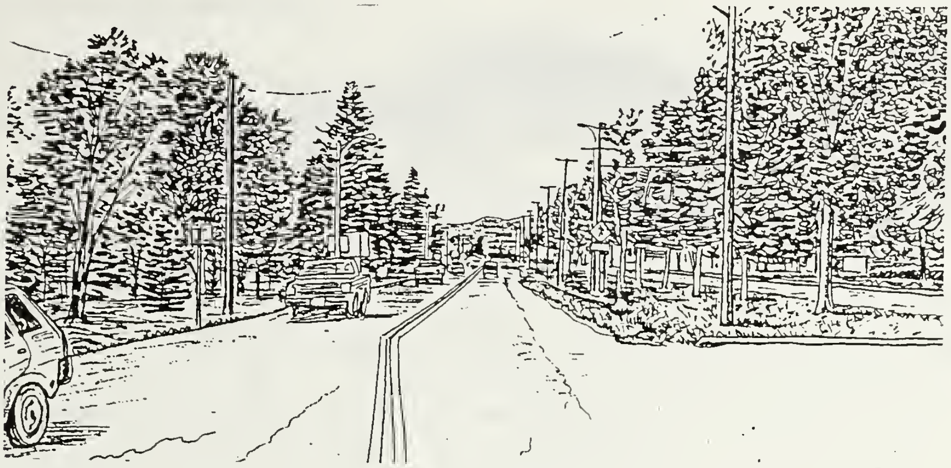
Visual perspectives of the No-Build (existing) and the Preferred Alternative are shown on Figures 4-25 and 4-26.

Visual impacts associated with this project can be described in terms of views from the roadway and views of the roadway. The following concerns about visual impacts were expressed during the public involvement portion of the project:

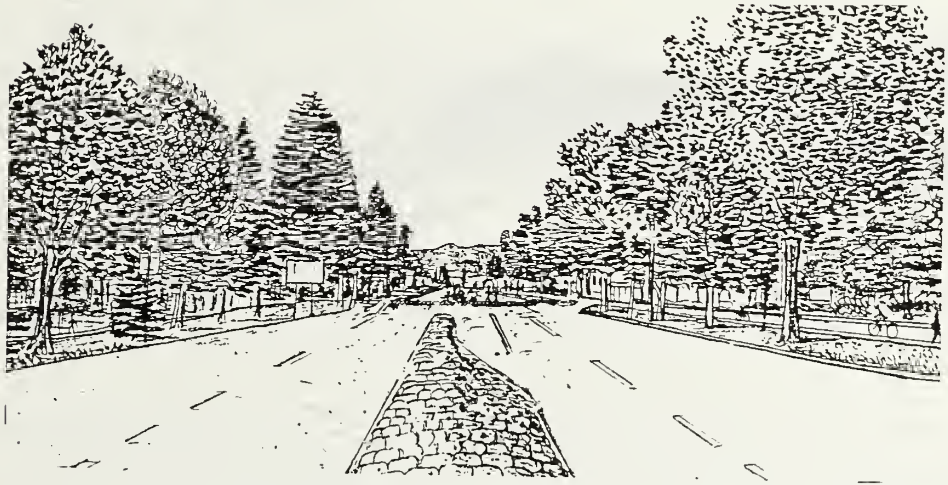
- Concern about removal of any existing trees along Bausch and Memorial Parks.
- Concern about maintaining and enhancing the character of the "park" area along the corridor.
- Concern regarding the treatment and materials used for landscaped areas such as the median.

4.17.2.1 No Build Alternative

The visual character of the No-Build Alternative would be essentially unchanged from the existing visual character.

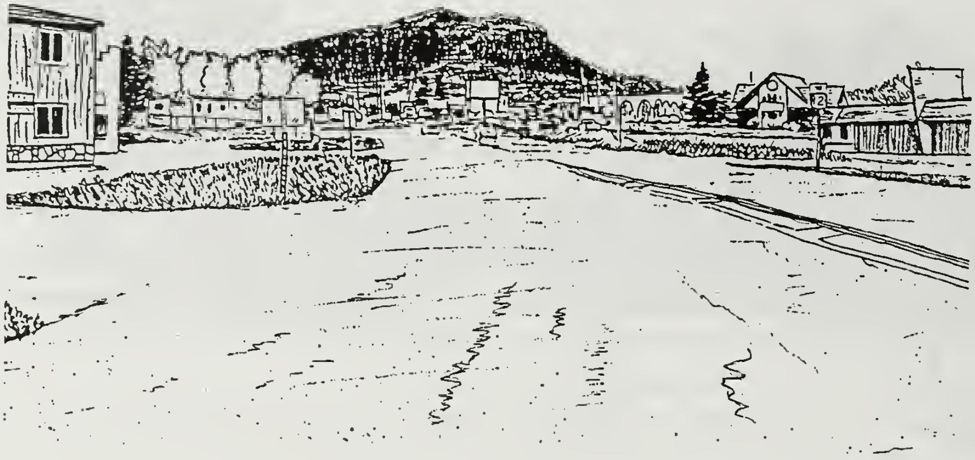


Existing Configuration
Looking north from south portion of corridor

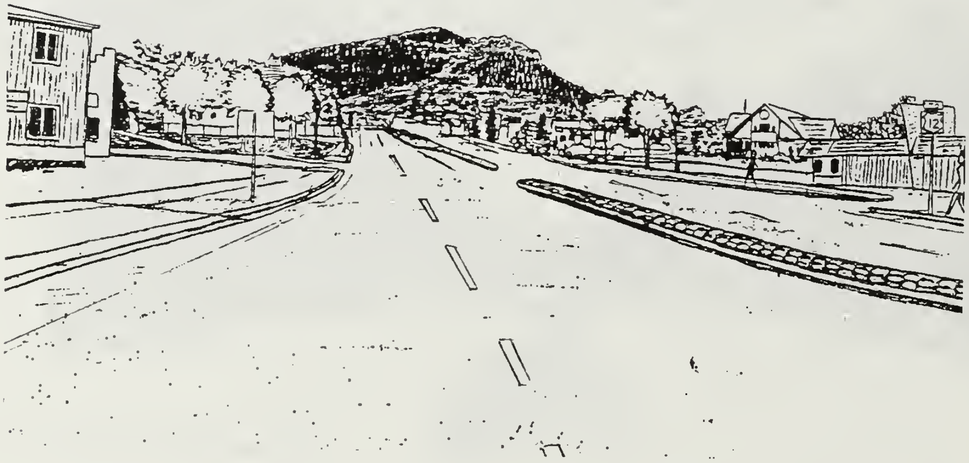


Preferred Alternative
Looking north from south portion of corridor

Figure 4-25
Visual Character - South Portion of Corridor



Existing Configuration
Looking south from north portion of corridor



Preferred Alternative
Looking south from north portion of corridor

Figure 4-26
Visual Character - North Portion of Corridor

4.17.2.2 Preferred Alternative

The Preferred Alternative will result in short-term visual impacts during the period of construction. These will include:

- Stockpiling of construction equipment and materials.
- Dust and debris resulting from construction activity.
- Traffic congestion during construction.

Long-term impacts to visual character include the following:

For the segment south of MRL mainline railroad crossing:
- Addition of raised median with aesthetic treatment
- Expanse of pavement "broken up" by median
- Access that is more organized
- Addition of landscaping on roadside
- Additional structure (new bridge)
- Relocation of structures (billboards, utility lines)

For the segment north of MRL mainline railroad crossing:
- Expansion of width of pavement
- Access that is more organized
- Addition of landscaping
- Additional structure (new bridge)
- Relocation of structures (billboards, utility lines)
- Removal of several mature trees

4.17.3 Mitigation

Potential mitigation measures that could be considered include:

- Use of materials reflecting the character of the surrounding environment. These materials may include rough hewn timbers, cut stone, cobbles and other decorative rock and low water vegetation.
- Regular maintenance of landscaped areas. This maintenance could be provided by interagency agreement between the MDT, City of Helena, and local citizens groups willing to provide services for the beautification of Helena.
- Creation of a specific landscape plan describing layout, details and materials to be used in the project.
- Avoidance of trees to the extent possible.
- Replacement of any trees that will be removed or damaged.

4.18 Construction

4.18.1 Impacts

4.18.1.1 No Build Alternative

No construction impacts will result from the No Build Alternative.

4.18.1.2 Preferred Alternative

There are several impacts associated with the construction phase of the Preferred Alternative. They include:

- Noise. The operation of various types of machinery such as heavy earth moving equipment, paving equipment, power tools, pile drivers, and trucks in close proximity to residences will create a temporary increase in noise.
- Fugitive Dust. The operation of heavy equipment on exposed soils may result in creating fugitive dust.
- Erosion and Sedimentation. Runoff from areas of exposed soils may affect the water quality of roadway drainage areas. Sedimentation may occur when eroded soils collect in areas below the construction site.

- Visual. Stockpiles of earth materials, stacks of construction materials, and parked equipment may cause a temporary visual impact to the residents and businesses within the project area as well as people using the corridor.

- Traffic. Traffic patterns may be disrupted for motorists, trucks, pedestrians and bicyclists who utilize the corridor. Of special concern is the response routes for emergency vehicles during construction.

- Access. Access to the residences, businesses, and public facilities along North Main Street may be disrupted during construction along the roadway.

4.18.2 Mitigation

Construction impacts will be mitigated through implementation of control measures during construction. Careful documentation of the mitigation measures must be made within the plans and specifications. It is essential that the construction inspection and administration enforce the adherence to those mitigation measures contained in the construction documents. These measures include:

- Limit noise-generating construction activities to occur during daytime near residential areas to minimize noise impacts.

- Require the use of mufflers on construction equipment such that noise emitted is no louder than it would be if the equipment were purchased new.

- Require the use of appropriate dust suppression measures to minimize dust impact associated with the construction activities. This can include the use of dust palliatives such as water or magnesium chloride.

- Require erosion control methods, such as temporary and permanent seeding and mulching within a reasonable time after the soil is disrupted.

- Require sedimentation control methods as described in the MDT Highway Construction Standard Erosion Control Work Plan, such as check dams, silt fences, and sedimentation basins along drainage routes and adjacent to sensitive areas.

- Require that the contractor implement an approved water quality control plan, so that appropriate measures are in place in the event of an accidental spill.

- Require that appropriate dewatering measures are implemented such that water removed from trenches and foundation construction areas are not released without proper treatment.

- Designate a suitable construction staging area, and require that the contractor store materials and equipment within that area to minimize the visual impact.

- Develop construction staging and traffic control plans that minimize the disruption to traffic and access. The traffic control plan must specifically address the maintenance of a route for emergency vehicles that is not affected by the operation of the railroad.

- Provide adequate public notice and maintain coordination with area residents. businesses and general public to keep the public appraised of the construction progress and to warn of closures and detours.

4.19 Cumulative Impacts

Cumulative impacts are defined as impacts which "result from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions regardless of what agency (federal or non-federal) undertakes such other actions."

Cumulative impacts for this project include:

- Indirect or secondary impacts, which are addressed in each section.

- Impacts associated with other projects, which are described in this section.

Known projects in this vicinity, with an assessment of probably cumulative impact, are:

☐ Forestvale Interchange

The Forestvale Interchange (also known as the North Valley Interchange) is a proposed new diamond interchange at Forestvale Road and Interstate 15. The project is a committed Major Network Improvement in the *Helena Area Transportation Plan.* The project is located approximately 5.5 kilometers (3.4 miles) northeast of the North Main Street corridor. The effects of the Forestvale Interchange upon traffic flows on the North Main Street corridor are expected to be minimal. It is not anticipated that both projects will be constructed at the same time, therefore, no cumulative construction impacts will result.

5.0 Section 4(f)

The proposed action is under Title 23 of the Code of Federal Regulations 771.135, Section 4(f) (49 USC 303) of the Department of Transportation Act. The Act states that "The Administration may not approve the use of land from a significant publicly owned park, recreation or wildlife and waterfowl refuge or any significant historic site unless a determination is made that:

i. There is no feasible and prudent alternative to the use of land from the property; and

ii. The action includes all possible planning to minimize harm to the property resulting from such use."

The following Section 4(f) sites are impacted by the Preferred Alternative:

National Guard Armory
Memorial and Centennial/Bausch Parks

Separate "Nationwide" Section 4(f) evaluation forms were prepared for the National Guard Armory, the two overpass bridges Memorial and Centennial/Bausch Parks.

The National Guard Armory site requires a Section 4(f) evaluation in order to convert any of the property to another use. The Montana Department of Military Affairs was contacted and responded on January 18, 1996 with their approval of our assessment of impacts and proposed mitigation. (See letter in Appendix A). A programmatic Section 4(f) evaluation for the National Guard Armory is contained in Appendix B. The Programmatic Memorandum of Agreement (PMOA) for historic sites is contained in Appendix B.

The Memorial and Centennial/Bausch Park sites require a Section 4(f) evaluation in order to convert any of the property to another use. The City of Helena Parks Department was contacted and responded on January 16, 1996 with their approval of our assessment of impacts and proposed mitigation. (See letter in Appendix A). A programmatic Section 4(f) evaluation for the Memorial and Centennial/Bausch Parks is contained in Appendix B. The PMOA for parks is contained in Appendix B.

6.0 Comments and Coordination

Several methods of communicating with the public were utilized during the course of this study. The goals of the project communication program were to:

- Provide information regarding the study.
- Develop concepts and alternatives.
- Determine issues.
- Communicate ideas and concepts that are considered.
- Receive comments on the study and project.

6.1 Public Involvement Activities

The public involvement activities have involved public workshops, Advisory Committee meetings, small group meetings, newsletters and meetings with individuals. Detailed meeting minutes and copies of newsletters are included in Appendix B. The following is a summary of the public involvement activities:

- Public Workshops. Three public workshops have been held during the preparation of this document. Each of the meetings consisted of either work sessions or an open house, in addition to a short presentation on the status of the study. Several members of the project team attended each of the meetings to provide an ample number of facilitators to answer questions and to receive comments. The public workshops are described as follows:
    - Public Workshop No. 1. This meeting was held on March 1, 1994. The purpose of this meeting was to develop the project scope, to determine issues, and to hear suggestions on possible alternatives. The meeting consisted of a short presentation, a subsequent question and answer period, and a work session. During the work session, meeting attendees divided into groups of 8 to 12 persons. Each group had a facilitator who recorded issues and comments, one aerial photo of the area and markers to sketch possible alignments.

  - Public Workshop No. 2. This meeting was held on April 26, 1994. This meeting consisted of an open house preceding the meeting, a short presentation, a question and answer period, and a resumption of the open house. Graphics were utilized to convey issues, alignments and work progress. Specific questions and comments from previous meetings were addressed. Issues and comments voiced at the meeting were recorded.

  - Public Workshop No. 3. This meeting was held on September 21, 1995. This meeting consisted of a presentation, a question and answer period, followed by an open house. Evaluations of pedestrian crossing concepts for the crossing between the Centennial/Bausch and Memorial Parks were presented. Evaluations of various cross-section concepts were presented. Graphics were used to show concepts in both cross-sections and plan views. Issues and comments voiced at the meeting were recorded.

- Advisory Committee. This committee was formed to provide input from interest groups, agencies, business people and residents into the development and results of the study. Meetings were held at key points during the study when key decisions were made or to review the progress of the project team. Detailed meeting minutes from each of the Advisory Committee meetings are contained in a separate document containing meeting minutes for all of the public coordination activities. A summary of the Advisory Committee's recommendations are listed below:

  - Consider traffic patterns and continuity with Helena Transportation Plan.
  - Consider the needs of pedestrians in the corridor.
  - Consider the needs of bicyclists in the corridor.
  - Consider how this study relates to the Great Northern Redevelopment Study currently underway.
  - Consider how bicycle and pedestrian connections are made to other facilities in the community.
  - Separate bicycle and pedestrian traffic from automobile traffic as much as possible.
  - Maintain the multi-use aspect of the facility but minimize the width of the roadway to reduce property and parking impacts to adjacent businesses,
  - Stress the importance of the aesthetic value of the corridor.
  - Consider the social impacts on the adjacent neighborhoods.
  - Consider how access is maintained to the businesses and residences on Chestnut Street west of North Main Street.
  - Consider how the new roadway will affect property values.
  - Recommend pedestrian underpass in combination with an at-grade crossing between Centennial/Bausch and Memorial Parks.
  - Recommend that the Combination and Median (4-Lane) concepts be considered as alternatives.

- Newsletters. Three newsletters were distributed. The purpose of the newsletters was to provide information and announce upcoming meetings. The initial mailing area included the entire project study surrounding the corridor. Subsequent mailings were limited to those people who attended the public meetings or expressed an interest in the project. Copies of the newsletters are contained in a separate document containing information regarding all public coordination activities.

6.2 Responses to Public Concerns

The following responses are provided to issues raised by the public.

1. Does the center median allow for U-turns? *Response: There will be median openings at each block where U-turns could be made in the Preferred Alternative. The street network, however, is well developed such that vehicles wishing to turn left from one direction of travel across the median would be able to go to the next intersecting street and use that intersecting street to reach their destination.*

2. Does 70 feet of right-of-way along the parks allow enough width for a median? *Response: No, the roadway width through the park area is 21.8 meters (71.5 feet). This provides for raised center median and two through-lanes in each direction. Additionally, a 2.4 meter (7.9 foot) strip is needed on either side of the road for roadway purposes such as snow storage and signing.*

3. What is the funding sources for the project? What portion of the funding is federal and what portion is state? *Response: The project is funded by the Intermodal Surface Transportation Efficiency Act, Surface Transportation Program Urban Funds. 87% of the funding is Federal and 13% is State funding.*

4. What is the schedule for the project? *Response: The intent of the project is to have all design completed in 1997. Construction could follow shortly thereafter depending upon funding availability.*

5. What happens to traffic during the construction of North Main Street? *Response: Through-traffic will be maintained on North Main Street through construction of the project. The construction will be phased to maintain that traffic. We anticipate that there will be delays due to the construction and traffic will likely divert to other corridors during that time.*

6. How will TDM be looked at in 20-25 years? *Response: It is difficult to anticipate what public sentiments towards TDM will be in 20 to 25 years. However, there was a Transit Development Plan recently conducted for the Helena area and in that plan a survey was conducted of both city and county residences. 56 percent of those surveyed felt there was a need for a transport service for the general public in the Helena area. However, 13 percent said that they would use such a system once a week and 26 percent said they would use the service occasionally.*

7. TDM should be used to reduce congestion by reducing single occupancy vehicles with other modes of transportation such as pedestrians and bicyclists. *Response: Any project to improve North Main Street will include improvements to the facilities for pedestrian and bicyclists. In addition, should Helena implement a TDM program that has similar results to successful TDM programs in other communities, traffic volumes will still be sufficiently high to warrant added capacity.*

8. Will equal amount of tree stock be replaced? *Response: The goal of this design is to avoid removing significant trees along the corridor. If trees are removed, however, they will be replaced on an inch-per-inch (based on diameter) basis.*

9. Will traffic volumes be higher with the wider roadway? *Response: The Montana Department of Transportation has estimated with the Helena Transportation Model that if the recommended improvements from the Helena Transportation Plan are not implemented including this roadway that the volumes would continue to increase to regardless of whether it was widened or not by the year 2010. It is expected that as congestion increases motorists will seek other routes through town.*

10. A safe pedestrian and bicycle crossing between Centennial/Bausch and Memorial Parks is critical. North Main Street is frequently crossed during events as people use parking on both sides of the street during events. *Response: As part of this project, two different types of pedestrian crossings will be used at this location. One is an at-grade crossing at the street level located at the location of the current cross walk. The other is the grade-separated crossing whereby pedestrians would cross underneath the roadway at the location of the existing railroad spurline.*

11. What were the traffic volumes on North Main Street at the time of the 1981 EIS and what are they now? *Response: The traffic volumes in 1979 that were used in the 1981 EIS were 12,859 ADT just south of Lyndale Avenue. The traffic volumes in 1993 were 15,200 ADT at the same location.*

12. What is the relationship between the State and the City on this project? *The Montana Department of Transportation is administering the project. However, all of the study in the project is being conducted in a partnership in cooperation with the City of Helena.*

13. What is the proposed posted speed limit along this corridor? What will the speed limit be after this project is completed? *Response: The posted speed limit for most of the corridor is 35 miles per hour and is not anticipated to change once the construction is completed.*

14. Where are locations for future traffic signals? *Response: Traffic signals will be perpetuated at both the intersections at North Main and Montana and North Main and Lyndale Avenues. In addition, provisions for a future a signal are recommended for the intersection of North Main and Villard Avenue.*

15. How will emergency, commercial and residential access be maintained during construction improvements? *Response: The project will be designed and a construction/sequence of operations plan will be developed for the maintenance of access during construction. While it is anticipated that there will be delays to traffic with the construction of the project, traffic will be able to use the corridor throughout the construction.*

16. What can be done to improve the North Main/Poplar/Columbia intersection? *Response: It is proposed that the Poplar legs of that intersection be closed and that the Columbia Street will intersect directly in North Main to simplify the intersection.*

17. How many bridges will be replaced? *Response: Both bridges over the railroad tracks will be replaced.*

18. Can landscape median be constructed at the expense of parking in certain areas? *Response: The median width is provided to allow left turns to occur at the intersections. It is the width needed to facilitate those turns that dictates the width of the roadway section. Landscaping in itself does not require any additional width above that width needed for the left turns.*

19. How much room in median for landscaping with the four-lane concept? *Response: To provide necessary width for left-turn movement, the amount of width available for landscaping would be approximately 5.0 meters (16.4 feet).*

20. Of the traffic that occurs on North Main Street, how much originates and ends in Helena, and how much is traveling through Helena? *Response: An estimate was made using the Helena Transportation Model that 82% of the trips on North Main Street originate and end within the Helena area. 18% of the traffic is through traffic.*

21. The biggest congestion problem on North Main is at the Lyndale intersection during am/pm peak traffic periods. How does the project address this congestion at Lyndale? *Response: The intersection will be improved to address different turning movements that are experiencing congestion at this time and in the future.*

22. How far would the funds being used for this project have gone towards a grade separation on Montana? *Response: Conceptual cost estimates performed by the Montana Department of Transportation have been approximately $3 million for the North Main Street Project. Conceptual cost estimates for a grade separation at Montana Avenue have been in the range of $8 to $12 million.*

23. Is there a way of estimating how many vehicles divert from Montana Avenue to North Main to avoid the railroad crossing? *Response: The Helena transportation model currently does not specifically address the amount of diversion that occurs due to the railroad crossing at Montana Avenue. However, the traffic projections estimate that traffic will continue to increase on North Main to approximately the same levels whether or not there is a railroad crossing at Montana Avenue.*

24. If a facility that does not add capacity (additional through-lanes) were to be installed, how much time during the day would the street be congested? *Response: If capacity were not increased traffic would likely operate at less than LOS C for 9 hrs. +/- a day, and at LOS E or worse for 4 hrs. +/- a day.*

25. An alternative that does not increase the capacity of the North Main Street corridor should be considered for this project. (i.e.: A two-lane concept) *Response: A two-lane concept roadway section will not increase the through-lane capacity on North Main Street and will operate at LOS F or less conditions within the 20-year design horizon. A concept that does not maintain LOS C does not meet the Purpose and Need of providing capacity for the projected traffic, and thus will not be considered a viable alternative for this project.*

26. If Montana Avenue were improved to a 4-lane with a R.R. grade separation, how much traffic would divert from North Main Street? *Response: Less than 10% of the traffic would divert from North Main Street with an improved Montana Ave.*

27. Helena's traffic congestion is a result of Helena and Lewis & Clark County's land use policies and development patterns. *Response: The Helena Transportation Plan Update estimated projected traffic volumes for the year 2015. This projection is based on the current and projected land use in both Helena and Lewis & Clark County. The traffic projections developed from that Transportation Plan Update were used in the estimation of the 20-year design volumes for the North Main Street Project.*

28. Traffic signals cause a significant amount of congestion and LOS problems on this corridor. *Response: The signalized intersections on this project have, as signals commonly do limit the capacity of a corridor. This is due to the fact that a roadway corridor with an intersecting street at a traffic signal must share time for through traffic with the intersecting street. (i.e.: vehicles on a given roadway corridor are forced to wait for traffic on the intersecting roadway). In the case of North Main Street, however, the roadway segments between the intersections are also expected to need additional capacity within the 20-year design horizon or otherwise can be expected to operate at LOS F.*

29. If the two-lane and three-lane road designs could not have been built, why were they evaluated? *Response: The two-lane and three-lane road designs were evaluated at the request of and in response to public comment received during the public coordination activities. These designs, however, they do not meet the project purpose and need and were screened from full consideration in the EA.*

30. Who will make the final decision as to what will be built on North Main Street? *Response: As part of the Environmental Assessment, the Montana Department of Transportation identifies a recommended preferred alternative. The Federal Highway Administration will make the final decision.*

31. Who will maintain the landscaping in the boulevards or in raised medians? *Response: The Montana Department of Transportation does not have the resources or the ability to maintain landscaping. The Montana Department of Transportation will enter into an agreement with the City of Helena for the maintenance of any landscaping features. The City of Helena may work with individuals, landowners, or public service groups for the maintenance of those features.*

32. Will private property owners be required to maintain the boulevard in front of their property? *Response: Yes, on other streets in Helena, the adjacent landowner is responsible for maintaining the boulevard strip between the walk and the street.*

33. How will the trees in the Bausch and Memorial Parks be impacted by the roadway widening? *Response: There will be a number of trees removed in Centennial/Bausch Park. The trees on the island between the current North Main Street and the parking at Memorial Park will not be removed. The trees that will be removed for the project will be replaced on a 1:1 diameter per inch basis.*

34. The North Main Street is currently difficult and dangerous for pedestrians and bicyclists. *Response: The North Main Street improvements will include the installation of pedestrian/bicycle facilities through the length of the corridor and crossing North Main Street.*

35. A round-a-bout was suggested for the intersection at Villard Street and North Main Street. *Response: Generally, a round-a-bout is preferred for an intersection with large turning movements from many legs. The only large turning volume occurs between NB North Main and NB Villard. A traffic circle at the location of North Main Street and Villard Street would have substantial impact to adjacent properties and businesses, therefore, this concept was screened from further consideration.*

36. Consider a round-a-bout at the intersections of North Main/Lyndale/Last Chance Gulch and North Main/Cedar/Montana. *Response: Round-a-bouts were found to be not appropriate for the following reasons: Loss of continuity for this arterial connector between I-15 and US 12, and between the CBD and residential areas; Right-of-way impacts; pedestrian and bicycle facilities which are more circuitous and indirect; More potential conflicts between vehicles and bicycles; Inability for emergency vehicle preemption.*

6.3 Agency Coordination

Contacts were made with the following agencies or groups regarding this project:

- Natural Resource Conservation Service
- US Forest Service
- US Fish and Wildlife Service
- US Army Corps of Engineers
- Environmental Protection Agency
- Federal Highway Administration
- Montana Department of Transportation
- Advisory Council for Historic Preservation
- Montana Department of Environmental Quality
  - Solid and Hazardous Waste Bureau
  - Montana Air Quality Bureau

  - Montana Water Quality Bureau
- Montana Department of State Lands
- Montana State Historic Preservation Office
- Montana Natural Resource Information System and Natural Heritage Program
- Montana Department of Fish, Wildlife, and Parks
- City of Helena Planning Office
- City of Helena Public Works Department
- City of Helena Parks Department
- Helena Transportation Coordinating Committee
- Helena Public Works Department
- Montana Rail Link

6.4 Remaining Public Involvement

Contact will be maintained with local individuals, area businesses, and community groups throughout the remainder of the study and design process.

A Notice of Availability of the EA and planned date for the public hearing will be mailed or delivered to all parties on the project mailing list and advertised in the local newspapers. A notice will be published in the *Helena Independent Record* to inform the general public of the hearing. The date of the public hearing will be advertised at least fifteen days in advance of the hearing.

At the public hearing, the general public will be given the opportunity to provide official comment on the project. Written comment, to be included as an official part of the record, will be accepted during the fifteen calendar days following the hearing.

Following the close of the comment period, comments that have been received will be summarized. If appropriate, a Finding of No Significant Impact will be prepared. If significant impacts are identified, then an Environmental Impact Statement will be prepared.

6.5 List of Preparers

The primary consultant for this project is Stahly Engineering & Associates. Stahly used several subcontractors to provide technical expertise on various portions of this EIS. These subcontractors included:

- Carter & Burgess, Inc.: Environmental Assessment, public involvement
- Ethnoscience: Historic and archaeological analysis
- Maxim Technologies, Inc.: Hazardous Materials

Table 6-1 lists representatives of the agencies and firms responsible for preparation of this EA, with their project responsibility, education and experience.

Table 6-1
List of Preparers

Name, Title & Project Responsibility	Education	Experience
Montana Department of Transportation		
Joel Marshik, Environmental Services, MDT EA Reviewer	Professional Engineer	30 years of experience in traffic engineering, highway design and environmental analysis and coordination
Gary Gilmore, Administrator, Highways Division	Professional Engineer	Experience in highway design, construction and administration
Carter & Burgess / Subconsultants		
Gina McAfee, Environmental Manager, Carter & Burgess	BS, Landscape Architecture, Certified Planner	Eighteen years of experience in environmental analysis
Jeanette Lostracco, Environmental Planner, Carter & Burgess	BA, Geography; Master of Business Administration; Certified Planner	Fourteen years of experience in environmental analysis
Nanette Neelan, Traffic Analysis, Conceptual Design, Carter & Burgess	BS, Civil Engineering, Registered Professional Engineer	Thirteen years of experience in traffic, highway planning and design
Joe Hart, Transportation Analysis, Carter & Burgess	BS, Civil Engineering; MS, Civil Engineering, Registered Professional Engineer	Eighteen years of experience in conceptual design, traffic engineering, transportation planning and transit analysis
Kathy Harris, Traffic Analysis, Carter & Burgess	BS, Civil Engineering, Registered Professional Engineer	Thirteen years of experience in traffic, highway planning and design
Cora Helm, MDT, Noise Impacts	BS, Geology, MS, Geology	Two years of noise, air quality and hazardous waste investigations
Michael Worrall, Conceptual Design, Public Involvement, EA Preparation, Carter & Burgess	BS, Civil Engineering, Registered Professional Engineer	Eleven years of experience in highway planning and design
Jeremy Keene, Conceptual Design, Carter & Burgess	BS, Civil Engineering	Three-years experience in highway planning and design
Lee Cryer, Air Quality, Carter & Burgess	BS, Economics; MA, Regional Science	Seven years of experience in transportation planning
Scott Richman, Environmental Analysis, Carter & Burgess	BS, Environmental Design	Three years experience in planning
Michael Tupa, Visual Analysis, Carter & Burgess	BS, Landscape Design; MS, Landscape Architecture	Twenty-one years of experience in visual analysis and landscape architecture

Table 6-1 (continued)
List of Preparers

Name, Title & Project Responsibility	**Education**	**Experience**
Matthew Redmond, Environmental Analysis, Carter & Burgess	BS, Geology; MS, Urban Regional Planning; MS, Landscape Architecture	Three years experience in environmental analysis
Mary Hopkins, Graphic Artist, Carter & Burgess	BS, Recreation	Fourteen years of experience in graphics and public involvement
Stefanie Jakober, Word Processing, Carter & Burgess		Three-years experience in word processing
Misty McCoy, Word Processing, Carter & Burgess		Fourteen years of experience in word processing
Ken Deaver, Cultural Resource Analysis, Ethnoscience		Five years experience in cultural resource inventories and assessments.
Daphne Digrindakis, Hazardous Materials, Maxim Technologies	BS Geology	Environmental site assessment program management.

6.6 Permits Required and Regulatory Compliance

Permits Required - The following permits will be acquired prior to any relevant disturbance:

- This proposed project will require the following permit under the *Clean Water Act* **(33 U.S.C. 1251-1376):** A *Section 402*/Montana Pollutant Discharge Elimination System permit from the MDEQ's Water Quality Division.

6.7 Cooperating Agencies

The following Agencies cooperated in the preparation of this document.

US Fish and Wildlife Service
US Natural Resource Conservation Service
Lewis & Clark County
City of Helena
Montana Department of Transportation
Montana Department of Environmental Quality
Montana Department of Fish, Wildlife and Parks

Appendix A

Agency Coordination Letters

LEWIS AND CLARK
CITY-COUNTY HEALTH DEPARTMENT
City-County Building
316 North Park
Box 1723
Helena, Montana 59624
Telephone 406 / 447-8351

January 19, 1993

Scott Richman
Carter-Burgess
123 W. Spruce St.
Missoula, MT 59802

Dear Mr. Richman,

The following two graphs (Graph #1 & Graph #2) display data gathered from the Helena Lincoln School air quality monitoring site October 1 to December 31, 1993. The site is located in the Lincoln School parking lot at the corner of Cooke St. and Poplar St. Continuous PM-10 data is gathered at the site with a Rupprecht & Patashnick TEOM (Tapered Element Oscillating Microbalance) Series 1400A monitor. The bars on each graph represent the average PM-10 concentration (ug/m^3) for specific hours of the day.

The averaged PM-10 data in GRAPH #1 produced two very distinct peaks, one at 9:00 A.M. and the other at 6:00 P.M. Our theory is that these two peaks are the result of road dust from rush-hour traffic on main vehicle arteries in the immediate area, N. Montana Ave. and Cedar St.

This theory was explored further in GRAPH #2 by separating the week-day and week-end data and then directly comparing the hourly averages of each data set. The idea behind this comparison is that the typical commuter contributes to the dust problem by driving to work around 8-9 A.M. and from work around 5-6 P.M. Monday through Friday (week-days). On week-ends and holidays these same people are travelling at more random times if at all.

The results of GRAPH #2 clearly indicate that the high PM-10 averages at 9:00 A.M. and 6:00 P.M. are a result of week-day, job-commuter traffic in the area near the Lincoln School monitoring site.

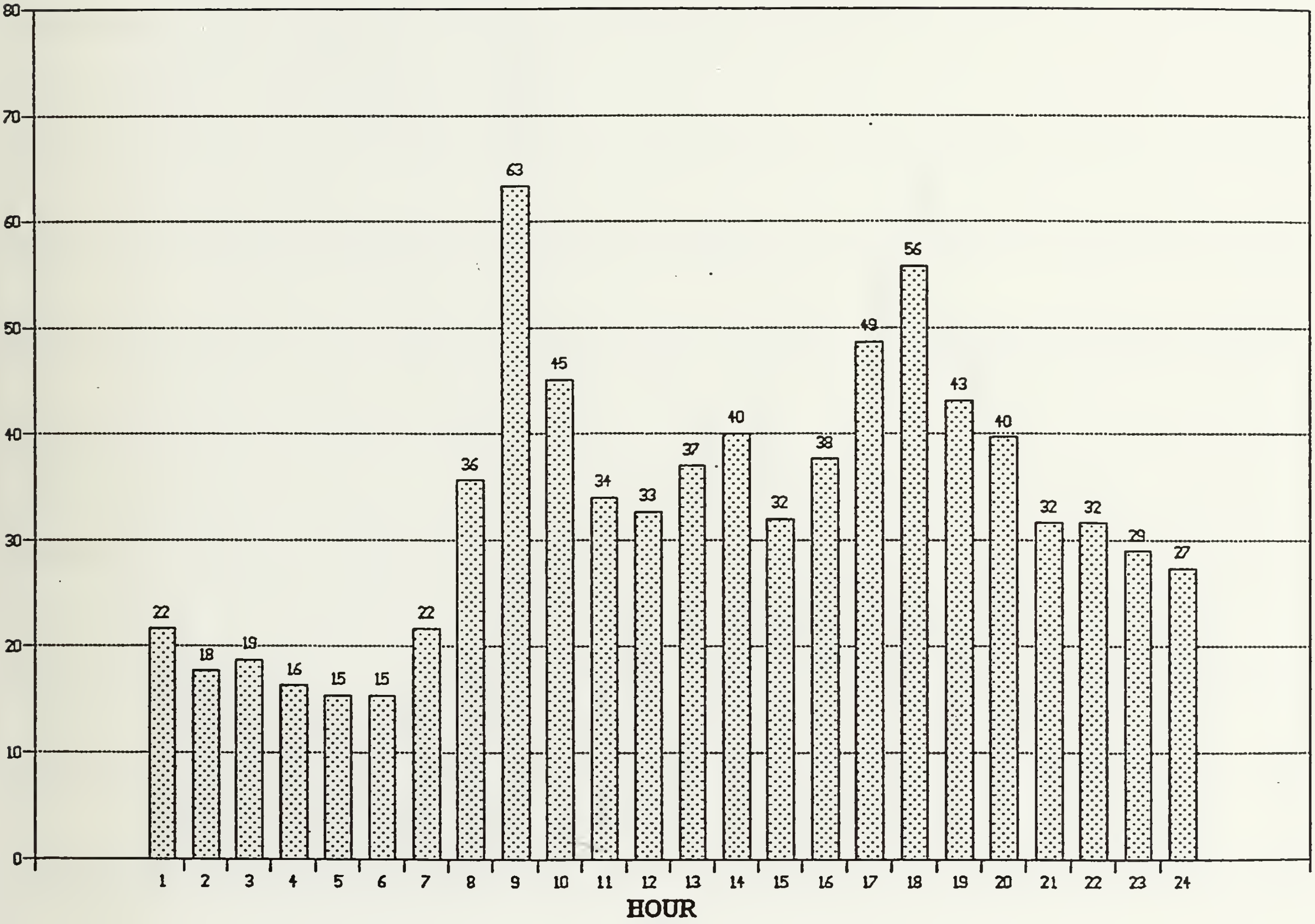
You will also find Oct.1 to Dec.31, 1993 hourly PM-10 data enclosed. I hope this data benefits your need. Please call me at 447-8353 if you have any further questions or require more assistance.

Sincerely,

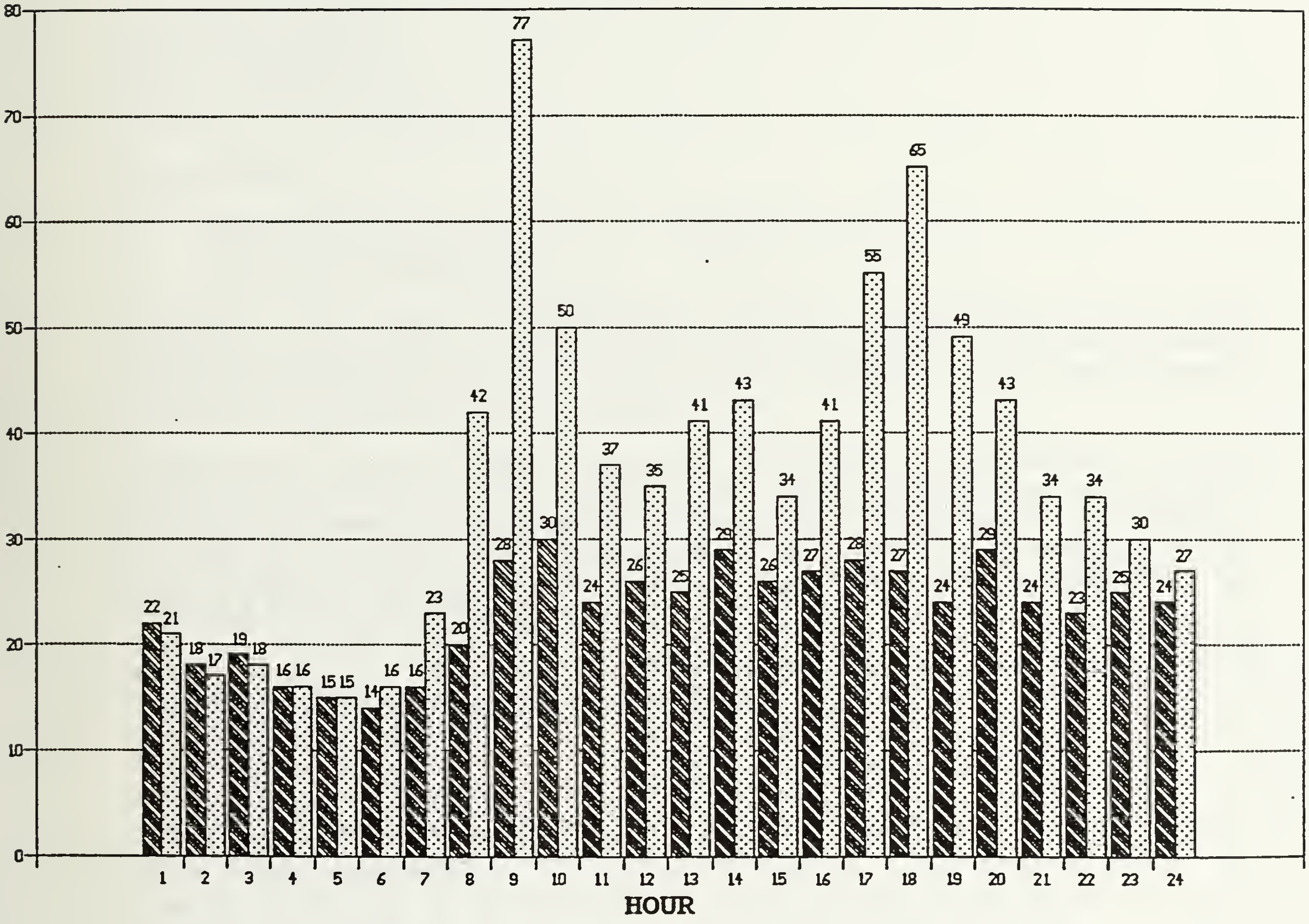
Eric Kopczynski

Eric Kopczynski
Environmental Health Specialist
Air Quality Program Coordinator

Oct.- Dec. Daily PM-10 Data
Averaged Hourly - GRAPH #1



Oct.- Dec. PM-10 Data
Averaged Hourly - GRAPH #2



**Montana Department
of
Fish, Wildlife & Parks**

1420 East Sixth Avenue
Helena, Montana 59620

February 18, 1994

C. Scott Richman
Project Planner
Carter•Burgess
123 W. Spruce St.
Missoula, MT 59802

Dear Scott:

RE: MDT Project N. Main St. - Lyndale Ave. and
Montana Avenue/Cedar St. - Helena

Attached for your information is an (outdated) city plat identifying the location of Land and Water Conservation Fund (LWCF) assisted projects in the Helena area. Notice there are several projects in the proposed project area.

Should any of the LWCF assisted projects be impacted by the proposed project, a LWCF Section 6(f) Conversion of Use will occur. The City of Helena is sponsor of the LWCF projects so if there is an impact, the City of Helena, the Department of Transportation, your agency and myself will need to work together to complete the Section 6(f) requirements.

Let me know if I can be of further help at this time. Please keep me informed as the project progresses.

Sincerely,

Mary Ellen McDonald

MARY ELLEN McDONALD
Program Officer
Operations Bureau
Parks Division

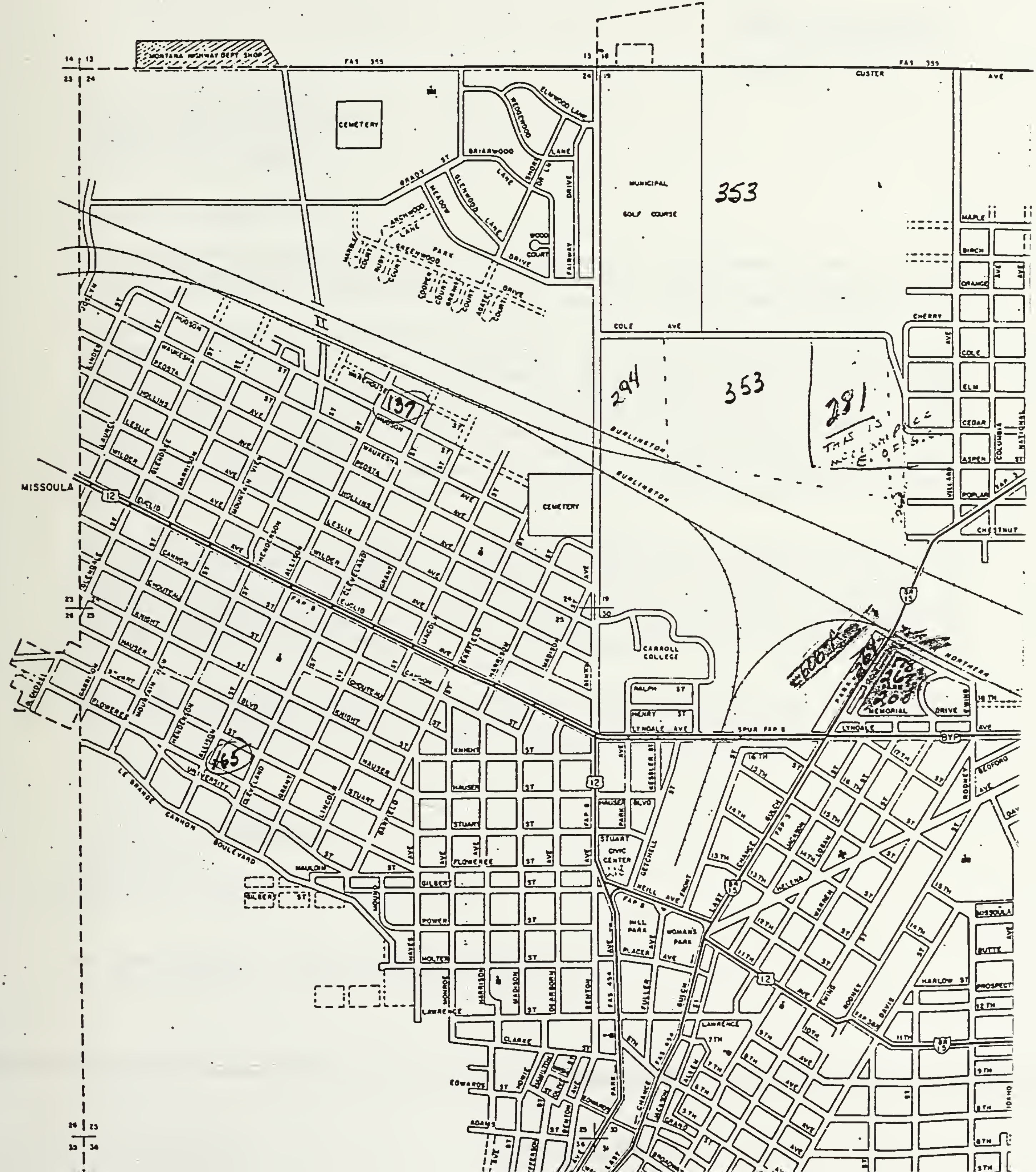
Attachment

cc: Randy Lilje, Community Facilities Director
City of Helena, 316 N. Park Ave.
Helena, MT 59623

25 - L & C Fairboard (Cty)
137 - Helena A/D (Barney)
165 - Cunningham Park([illegible])
✓178 - Municipal Pool
200 - Memorial Park
218 - Tennis Courts
~~240 - Lockey Park~~ withdrawn
✓264 - Horseshoe Complex
✓267 - Helena Warming-Storage

O-403
25

270 - N. P. Park
✓281 - McHugh Park A
✓294 - Sports Complex A/D
✓353 - Bill Roberts Golf Course
✓403 - L & C Fairgrounds Park (Cty)
606-A Helena ~~Landfill Park~~ Centennial
610- Sierra Park (SD#1)



Montana Department
of
Fish, Wildlife & Parks

1404 Eighth Avenue
Helena, MT 59620-0701

March 16, 1994

Mr. C. Scott Richman
Carter•Burgess Consultants
123 W. Spruce Street
Missoula, MT 59802

Dear Mr. Richman:

Regarding your request for wildlife information for a Supplemental Environmental Impact Statement/4(f) Evaluation for improving North Main Street between Lyndale Avenue and Montana Avenue/Cedar Street in Helena, I offer the following.

A wide variety of birds use the corridor that is described for upgrading. Although I have not conducted an inventory, I do know that a variety of sparrows, warblers, corvids, and gulls are regular inhabitant of the vicinity. The existing trees along North Main near the YMCA and Memorial Park are used particularly during spring for nesting. Endangered or threatened species are not known to occur in this area. Small mammals occur, particularly Columbian ground squirrels, some pine squirrels, and a variety of mice and possibly pocket gophers, however sampling has not been done to identify species present. Similarly, amphibians and reptiles may occur, but no information is readily available.

It is suggested that some level of biological sampling be conducted by your firm in order to quantify presence of existing species for the SEIS. Appropriate recommendations for green belt development could be designed to maintain or enhance the urban wildlife in this unique stretch of road in the center of the capitol city if this information were available. Since the road lies between two popular recreation/park areas, such considerations would be in the best interest of both wildlife and the people of Helena.

You might consider contacting the Montana Natural Heritage office (Natural Resource Information System) at the state library in Helena to see if they have mapped wildlife data for urban Helena. Their number is 444-3009.

Sincerely,

Gayle Joslin

Gayle Joslin
Wildlife Biologist

cc: Joel Peterson, Wildlife Manager Region 3
Jerry Wells

United States Department of the Interior

TAKE PRIDE IN AMERICA

FISH AND WILDLIFE SERVICE
ECOLOGICAL SERVICES
100 N PARK, SUITE 320
HELENA MT 59601

IN REPLY REFER TO:

M.17 (I)

March 30, 1994

C. Scott Richman
Project Planner
Carter & Burgess, Inc.
123 W. Spruce Street
Missoula, Montana 59802

Dear Mr. Richman:

This responds to your February 11, 1994 notice to prepare a Supplemental Environmental Impact Statement/4(f) Evaluation for improving North Main Street between Lyndale Avenue and Montana Avenue/Cedar Street in Helena. Your letter requested identification of the threatened and endangered species that should be considered in connection with this project.

Considering the specific nature and location of this project we do not believe there will be any project related impacts to threatened and endangered species.

We appreciate your efforts to consider and conserve threatened and endangered species. If you have questions regarding this letter, please contact Rob Hazlewood of my staff at (406) 449-5225.

Sincerely,

Kemper M. McMaster
Field Supervisor
Montana Field Office

RMH/rmh

Montana Department
of
Fish, Wildlife & Parks

1420 East Sixth Avenue
Helena, Montana 59620

RECEIVED
JUN 09 1994
Carter-Burgess
Denver, Colorado

June 8, 1994

Quint Redmond
216 - 16th St. Mall
Suite 1700
Denver, CO 80202

Re: MDT Project N. Main St. - Lyndale Ave. and
Montana Avenue/Cedar St. - Helena

Attached is a copy of the LWCF project boundary map for the Helena Centennial Park (formerly called Landfill Park).

It appears that the east project boundary is well outside of the existing North Main Street right of way and the area you said may be impacted. However, the Park access area does extend to the edge of Main Street, refer to the attached boundary map.

The Land and Water Conservation Fund, Section 6(f), protects all properties within designated LWCF project boundaries. If the proposed road construction stays within the existing right of way in the park access area, there should be no problem.

Please let me know where the road project boundary is and whether or not it will be outside of the existing right of way in the park access area.

Give me a call at 406-444-3750 if you have any questions or to discuss the above.

Sincerely,

Mary Ellen McDonald

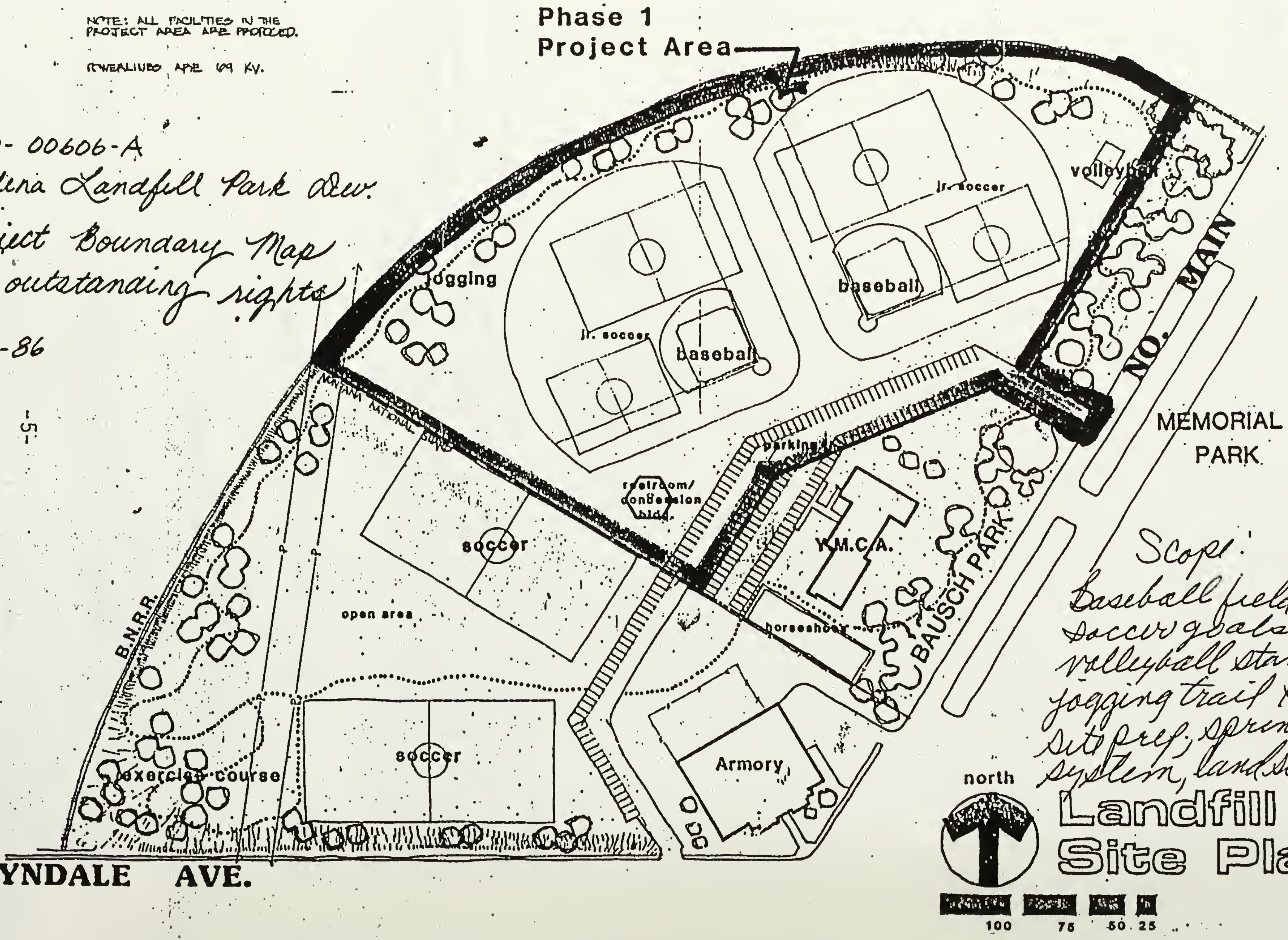
MARY ELLEN McDONALD
Program Officer
Resource & Recreation Bureau
Parks Division

cc: Randy Lilje, Community Facilities Director
City of Helena, 366 N. Park Ave.
Helena, MT 59623

Attachment

MMC

#30- 00606-A
Helena Landfill Park Dev.
Project Boundary Map
No outstanding rights
1-9-86



Scope:
Baseball field backsto
soccer goals
volleyball standards
jogging trail signs
site prep; sprinkling
system, landscaping, par

Landfill Park Site Plan

FILE:
N.M. Public Comm

United States
Department of
Agriculture

Soil
Conservation
Service

TO: Carter & Burgess c/o Scott Richman
123 W. Spruce
Missoula, MT 59802

June 21, 1994

From: USDA Soil Conservation Service
790 Colleen St
Helena MT 59601

Concerning: North Main Street Improvement Project
Environmental Assessment

Mr. Richman,

Recently you contacted this office concerning the above mentioned project and whether or not there were any prime and unique farmlands in the project area. In the area around Lyndale Ave. and Montana Ave. our soils data shows that there are no prime and unique farmlands in the project area.

If this office can be of further assistance please feel free to call us at 449-5278.

Sincerely,

Kelly S. Morris

Kelly S. Morris

RECEIVED

JUL 06 1994

Carter-Burgess
Denver, Colorado

MONTANA NATURAL HERITAGE PROGRAM
1515 East Sixth Avenue
P.O. Box 201800
Helena, Montana 59620-1800
(406) 444-3009

June 17, 1994

Scott Richman
Carter & Burgess
216 16th Street Mall
Suite 1700
Denver, Colorado 80202

Dear Mr. Richman:

In response to your request, we searched our data bases for information on species of special concern in the vicinity of T10N, R3W, sections 19, 20, 29 and 30.

We currently have no records of species of special concern in this area.

Please remember that the results of a data search by the Montana Natural Heritage Program are not intended as a final statement on sensitive species within a given area, or as a substitute for on-site surveys which may be required for environmental assessments.

Let me know if we can be of further assistance.

Sincerely,

Margaret Beer

Margaret Beer
Information Manager

RECEIVED
JUN 22 1994
Carter-Burgess
Denver, Colorado

**Montana Department
of
Fish, Wildlife & Parks**

1420 East Sixth Avenue
Helena, Montana 59620

October 31, 1995

Jeanette Lostracco
Carter●Burgess
125 W. Spruce Street
Missoula, MT 59802

Re: STPU 5807(7) F
N. Main St. - Helena
Control #2319
LWCF Project #30-00606-A -
Helena - Centennial Park

Dear Jeanette:

Recently I've discussed the Helena Centennial Park LWCF project boundary with National Park Service. We have concluded that the access road does not fall within the project boundary, therefore, is not protected under Section 6(f) of the LWCF Act.

Please consider this your notification that there will be no Section 6(f) impact as a result of the North Main Street project.

Let me know if you need additional information or wish to discuss further.

Sincerely,

Mary Ellen McDonald

MARY ELLEN McDONALD
Program Officer
Resource & Recreation Bureau
Parks Division

cc: Randy Lilje, Community Facilities Director
City of Helena, 316 N. Park, Helena, MT 59623

Joel M. Marshik, P.E., Manager Environmental
Services, Montana Department of Transportation,
P. O. Box 201001
Helena, MT 59620-1001

MDT Montana Department of Transportation
2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001

Marc Racicot, Governor

NOV 7 1995

November 3, 1995

Paul Putz
State Historic Preservation Office
1410 8th Avenue
P.O. Box 201202
Helena, MT 59620-1202

NOV 7 1995.

CONCUR
MONTANA SHPO
DATE 28 Nov 95 SIGNED Josef J Warhank

Subject: STPU 5807(7)
North Main Street - Helena
Control No. 2319

On October 21, 1994, your office concurred in a Determination of Adverse Effect to the Great Northern Railroad Grade (24LC1192) located within the above project area (attached). Since then, however, the design of the North Main Street - Helena project has been modified in regards to the old railroad grade. Instead, the existing overpass structure would be replaced with a new overpass instead of fill material as originally planned. Consequently, the 377-feet of railroad grade that would have been destroyed originally would remain intact. The existing alignment would be perpetuated and there would be no degradation of the historic resource as a consequence of the proposed project. We are, therefore, revising our original determination and maintain that the proposed project would have **No Effect** to the NRHP-eligible Great Northern Railroad Grade (24LC1192). We request your concurrence.

The proposed plans in the vicinity of the National Guard Armory (24LC878) and the Northern Pacific Railroad Grade (24LC1139) remained unchanged. The project would still have a **No Adverse Effect** to 24LC878 and a **No Effect** to 24LC1139.

If you have any questions, please contact me at 444-6258.

Jon Axline

Jon Axline, Historian
Environmental Services

Attachment

cc: Jason Giard, P.E., Butte District Administrator
Carl Peil, P.E., Preconstruction Bureau
Joel Marshik, P.E., Environmental Services
Gordon Stockstad, Resources Section

An Equal Opportunity Employer

U.S. Department
of Transportation
**Federal Highway
Administration**

Montana Division
301 South Park Street, Room 448
Drawer 10056
Helena, Montana 59626-0056

RECEIVED
DEC 08 1995
ENVIRONMENTAL

December 6, 1995

Claudia Nissley, Director
Advisory Council on Historic Preservation
730 Simms Street, Suite 450
Golden, Colorado 80401

MONTANA DEPT. OF TRANSPORTATION
RECEIVED
DEC 08 1995
HELENA, MONTANA

Subject: STPU 5807(7)
North Main Street - Helena
Control No. 2319

Dear Ms. Nissley:

Enclosed is the Determination of Effect and SHPO correspondence concerning the above project. The Montana Department of Transportation has determined, and the Montana SHPO concurred, that the proposed project would have **No Adverse Effect** to the NRHP-eligible National Guard Armory (24LC878) at Helena in Lewis and Clark County, Montana. We request your concurrence.

If you have any questions, please contact Jon Axline at the Montana Department of Transportation. He can be reached at (406) 444-6258.

Sincerely,

Dale Paulson
Environmental Coordinator

Enclosure

cc:
[illegible] Jon Axline

GUARDIAN OF THE GULCH

City of Helena

January 16, 1996

Mr. Michael Worrall
Carter & Burgess
125 West Spruce Street
Missoula MT 59802

Dear Michael:

This letter is in response to your December 26, 1995, letter regarding the North Main Street project in Helena and its impacts on Memorial, Centennial, and Bausch parks. All three parks are owned by the city of Helena and managed by the parks and recreation department.

We have reviewed your plans for widening the street, as well as other improvements to North Main Street, that will be constructed in the vicinity of the above-mentioned parks. We agree in concept with the work plan proposed in these parks. We understand that the project includes the conversion of about .037 acres along the frontage of Bausch Park. This comes from the addition of one half meter of paved area along the frontage of the park to accommodate the new design and additional travel lanes in the median.

We understand that no trees will be disturbed along this edge. However, the slope coming down from the widening of the street may impact some of the existing trees. Our experience has been that any fill of material greater than six inches deep within the root zone of the tree can be detrimental to a tree even if it is full grown. Therefore, we will have to monitor this very closely and either take steps to mitigate the impact or plan to replace the trees within a year or two.

We also understand that the stone cul de sac could be partially or completely removed. I recommend that if a portion has to be removed then the whole cul de sac should be removed.

We understand a detached sidewalk will be placed meandering through the park rejoining the roadway section at the National Guard Armory and at the spur line bridge. This sidewalk will not require any conversion of use by purchase of right of way as it will be included as a new facility within the park. There will be no permanent access changes to Bausch or Centennial Park.

N. Park, Helena, Montana 59623 Phone: (406) 447-8000

On the east side of the street, we understand that there will be a conversion of .121 acres of grassy median located between the parking lot for Memorial Park and North Main Street. Existing trees are located to the east side of the median and will not be disturbed by any alignment.

In addition to the taking, the middle access from North Main Street will be relocated, and there will be no net loss of park land associated with this relocation since the existing entrance will be refurbished. Mitigation of all impacts will include the replacement of all trees removed for the project on a one-to-one replacement program with no replacement tree being smaller than two inches in caliper. Other mitigation of the project will be the installation of a new bicycle/pedestrian path.

Thank you for including us in the early planning stages of this project. Please keep us informed of this project as the design progresses so that we may be of further assistance.

Sincerely,

Randy Lilje

Randy Lilje
Director of Parks and Recreation

c Rich Lynd, Parks Superintendent.

pa/ck/nrthmnmi.tig/1-96

DEPARTMENT OF MILITARY AFFAIRS

MARC RACICOT, GOVERNOR
P.O. BOX 4789

STATE OF MONTANA

OFFICE OF THE ADJUTANT GENERAL
(406) 444-6910
HELENA MONTANA 59604-4789

January 18, 1996

Department of Military Affairs
The Facilities Management Office
P.O. Box 4789
Helena, MT 59604-4789

Carter & Burgess Inc.
ATTN: Mike Worrall
125 W. Spring Street
Missoula, MT 59802

Dear Mr. Worrall:

This letter is in response to your letter of December 26, 1995, and our subsequent telephone conversation. Regarding the relevant information:

a. The Montana Army National Guard (MTARNG) Armory at 1100 North Main is owned by the State of Montana. It is operated and maintained by the Department of Military Affairs (DMA), a State entity. All real estate actions required, to include rights of way, must be accomplished under the auspices and through the procedures of the Lands Management Division of the Department of Natural Resources and Conservation.

b. Both the MTARNG and DMA have reviewed the plans for North Main Street in the vicinity of the 1100 North Main facility. We are in general agreement, but are not in position to give specific agreement, as we have not yet seen the final proposed plans. We don't have any particlar problem with the increased rights-of-way or park treatments. Traffic flows and ingress/egress with regard to our parking areas are still issues with us.

We are fully supportive of the project and will be awaiting a look at the final proposed plans. If there is anything we can do to implement early action on the right-of-way issue, please let us know. You can reach me at (406) 444-6935 or Mr. Chris Denning at (406) 444-6906.

Sincerely,

Allan V. Stricker
LTC, AR, MT National Guard
Director of Facilities

Montana Department
of Transportation

2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001

Marc Racicot, Governor

MASTER FILE
COPY

JOS
AUG 12, 1996

RECEIVED
AUG 21 1996
ENVIRONMENTAL

August 9, 1996

cc
40
03
06
03

Paul Putz
State Historic Preservation Office
1410 8th Avenue
P.O. Box 201202
Helena, MT 59620-1202

Subject: STPU 5807(7)
North Main Street - Helena
Control No. 2319

Enclosed are the site forms for two bridges located within the above project area. The bridges were originally recorded by myself and Ethnoscience in 1994. Because they were originally treated by the now-defunct Historic Roads and Bridges Programmatic Agreement, it was felt that a Determination of Eligibility for the structures is necessary at this point. We have recommended both bridges (24LC1158 and 24LC1199) as ineligible for the NRHP. Both structures are significantly deteriorated and the historic record concerning their construction is fragmentary (unlike most MDT-owned structures). This bridge type, moreover, is not suitable for adoption since it cannot be moved intact. Furthermore, nine reinforced concrete bridges similar or identical in design to the Helena structures have been selected for rehabilitation in the proposed Roads and Bridges Historic Preservation Plan.

If you have any questions, please contact me at ~~444~~-6258.

Jon Axline

Jon Axline, Historian
Environmental Services

CONCUR
MONTANA SHPO
DATE 8/21/96 SIGNED

Enclosures

cc: Jason Giard, P.E., Butte District Administrator
Carl Peil, P.E., Preconstruction Bureau
Joel Marshik, P.E., Environmental Services
Gordon Stockstad, Resources Section
Jeanette Lostracco, Carter-Burgess

Appendix B

Programmatic 4(f) Evaluation Forms and Programmatic Memorandum of Agreements

U.S. Department of Transportation
Federal Highway Administration

FINAL NATIONWIDE SECTION 4(F) EVALUATION AND APPROVAL FOR FEDERALLY-AIDED HIGHWAY PROJECTS WITH MINOR INVOLVEMENTS WITH HISTORIC SITES

This programmatic Section 4(f) evaluation has been prepared for projects which improve existing highways and use minor amounts of land (including non-historic improvements thereon) from historic sites that are adjacent to existing highways. This programmatic Section 4(f) evaluation satisfies the requirements of Section 4(f) for all projects that meet the applicability criteria listed below. No individual Section 4(f) evaluations need be prepared for such projects. (Note: a similar programmatic Section 4(f) evaluation has been prepared for projects which use minor amounts of publicly owned public parks, recreation lands, or wildlife and waterfowl refuges).

The FHWA Division Administrator is responsible for reviewing each individual project to determine that it meets the criteria and procedures of this programmatic Section 4(f) evaluation. The Division Administrator's determinations will be thorough and will clearly document the items that have been reviewed. The written analysis and determinations will be combined in a single document and placed in the project record and will be made available to the public upon request. This programmatic evaluation will not change the existing procedures for project compliance with the National Environmental Policy Act (NEPA) or with public involvement requirements.

Applicability

This programmatic Section 4(f) evaluation may be applied by FHWA only to projects meeting the following criteria:

1. The proposed project is designed to improve the operational characteristics, safety, and/or physical condition of existing highway facilities on essentially the same alignment. This includes "4R" work (resurfacing, restoration, rehabilitation, and reconstruction); safety improvements, such as shoulder widening and the correction of substandard curves and intersections; traffic operation improvements, such as signalization, channelization, and turning or climbing lanes; bicycle and pedestrian facilities; bridge replacements on essentially the same alignment; and the construction of additional lanes. This programmatic Section 4(f) evaluation does not apply to the construction of a highway on a new location.

2. The historic site involved is located adjacent to the existing highway.

3. The project does not require the removal or alteration of historic buildings, structures or objects on the historic site.

4. The project does not require the disturbance or removal of archeological resources that are important to preserve in place rather than to recover for archeological research. The determination of the importance to preserve in place will be based on consultation with the State Historic Preservation Officer (SHPO) and, if appropriate, the Advisory Council on Historic Preservation (ACHP).

5. The impact on the Section 4(f) site resulting from the use of the land must be considered minor. The word minor is narrowly defined as having either a "no effect" or "no adverse effect" (when applying the requirements of Section 106 of the National Historic Preservation Act

and 36 CFR Part 800) on the qualities which qualified the site for listing or eligibility on the National Register of Historic Places. The ACHP must not object to the determination of "no adverse effect."

6. The SHPO must agree, in writing, with the assessment of the impacts of the proposed project on and the proposed mitigation for the historic sites.

7. This programmatic evaluation does not apply to projects for which an environmental impact statement (EIS) is prepared, unless the use of Section 4(f) lands is discovered after the approval of the final EIS.

Should any of the above criteria not be met, this programmatic Section 4(f) evaluation cannot be used, and an individual Section 4(f) evaluation must be prepared.

Alternatives

The following alternatives avoid any use of the historic site.

1. Do nothing.
2. Improve the highway without using the adjacent historic site.
3. Build an improved facility on new location without using the historic site.

This list is intended to be all-inclusive. The programmatic Section 4(f) evaluation does not apply if a feasible and prudent alternative is identified that is not discussed in this document. The project record must clearly demonstrate that each of the above alternatives was fully evaluated before the FHWA Division Administrator concluded that the programmatic Section 4(f) evaluation applied to the project.

Findings

In order for this programmatic Section 4(f) evaluation to be applied to a project, each of the following findings must be supported by the circumstances, studies, and consultations on the project:

1. Do Nothing Alternative. The Do Nothing Alternative is not feasible and prudent because: (a) it would not correct existing or projected capacity deficiencies or (b) it would not correct existing safety hazards; or (c) it would not correct existing deteriorated conditions and maintenance problems; and (d) not providing such correction would constitute a cost or community impact of extraordinary magnitude, or would result in truly unusual or unique problems, when compared with the proposed use of the Section 4(f) lands.

2. Improvement without Using the Adjacent Section 4(f) Lands. It is not feasible and prudent to avoid Section 4(f) lands by roadway design or transportation system management techniques (including, but not limited to, minor alignment shifts, changes in geometric design standards, use of retaining walls and/or other structures, and traffic diversions or other traffic management measures) because implementing such measures would result in: (a) substantial adverse community impacts to adjacent homes, businesses or other improved properties; or (b) substantially increased roadway or structure cost; or (c) unique engineering, traffic, maintenance, or safety problems; or (d) substantial adverse social, economic, or environmental impacts; or (e) the project not meeting identified transportation needs; and (f) the impacts, costs, or problems would be truly unusual or unique, or of extraordinary magnitude when compared with the proposed use of Section 4(f) lands. Flexibility in the application of American

Association of State Highway and Transportation Officials (AASHTO) geometric standards should be exercised, as permitted in 23 CFR 625, during the analysis of this alternative.

3. Alternatives on New Location

It is not feasible and prudent to avoid Section 4(f) lands by constructing on new alignment because (a) the new location would not solve existing transportation, safety, or maintenance problems; or (b) the new location would result in substantial adverse social, economic, or environmental impacts (including such impacts as extensive severing of productive farmlands, displacement of a substantial number of families or businesses, serious disruption of established travel patterns, substantial damage to wetlands or other sensitive natural areas, or greater impacts to other Section 4(f) lands); or (c) the new location would substantially increase costs or engineering difficulties (such as an inability to achieve minimum design standards, or to meet the requirements of various permitting agencies such as those involved with navigation, pollution, and the environment); and (d) such problems, impacts, costs, or difficulties would be truly unusual or unique, or of extraordinary magnitude when compared with the proposed use of Section 4(f) lands. Flexibility in the application of AASHTO geometric standards should be exercised, as permitted in 23 CFR 625, during the analysis of this alternative.

Measures to Minimize Harm

This programmatic Section 4(f) evaluation and approval may be used only for projects where the FHWA Division Administrator, in accordance with this evaluation, ensures that the proposed action includes all possible planning to minimize harm. Measures to minimize harm will consist of those measures necessary to preserve the historic integrity of the site and agreed to, in accordance with 36 CFR Part 800 by the FHWA, the SHPO, and as appropriate, the ACHP.

Coordination

The use of this programmatic evaluation and approval is conditioned upon the satisfactory completion of coordination with the SHPO, the ACHP, and interested persons as called for in 36 CFR Part 800. Coordination with interested persons, such as the local government, the property owner, a local historical society, or an indian tribe, can facilitate in the evaluation of the historic resource values and mitigation proposals and is therefore highly encouraged.

For historic sites encumbered with Federal interests, coordination is required with the Federal agencies responsible for the encumbrances.

Before applying this programmatic evaluation to projects requiring an individual bridge permit, the Division Administrator shall coordinate with the U.S. Coast Guard District Commander.

Approval Procedure:

This programmatic Section 4(f) approval applies only after the FHWA Division Administrator has:

1. Determined that the project meets the applicability criteria set forth above;

2. Determined that all of the alternatives set forth in the Findings section have been fully evaluated;

3. Determined that the findings in this document (which conclude that there are no feasible and prudent alternatives to the use of land from or non-historic improvements on the historic site) are clearly applicable to the project;

4. Determined that the project complies with the Measures to Minimize Harm section of this document;

5. Determined that the coordination called for in this programmatic evaluation has been successfully completed;

6. Assured that the measures to minimize harm will be incorporated in the project; and

7. Documented the project file clearly identifying the basis for the above determinations and assurances.

Issued on: 12/23/'86 Approved:

Ali F. Sevin, Director
Office of Environmental Policy
Federal Highway Administration

U.S. Department of Transportation
Federal Highway Administration

FINAL NATIONWIDE SECTION 4(F) EVALUATION AND APPROVAL FOR FEDERALLY-AIDED HIGHWAY PROJECTS WITH MINOR INVOLVEMENTS WITH PUBLIC PARKS, RECREATION LANDS, AND WILDLIFE AND WATERFOWL REFUGES

This programmatic Section 4(f) evaluation has been prepared for projects which improve existing highways and use minor amounts of publicly owned public parks, recreation lands, or wildlife and waterfowl refuges that are adjacent to existing highways. This programmatic Section 4(f) evaluation satisfies the requirements of Section 4(f) for all projects that meet the applicability criteria listed below. No individual Section 4(f) evaluations need be prepared for such projects. (Note: a similar programmatic Section 4(f) evaluation has been prepared for projects which use minor amounts of land from historic sites).

The FHWA Division Administrator is responsible for reviewing each individual project to determine that it meets the criteria and procedures of this programmatic Section 4(f) evaluation. The Division Administrator's determinations will be thorough and will clearly document the items that have been reviewed. The written analysis and determinations will be combined in a single document and placed in the project record and will be made available to the public upon request. This programmatic evaluation will not change the existing procedures for project compliance with the National Environmental Policy Act (NEPA) or with public involvement requirements.

Applicability

This programmatic Section 4(f) evaluation may be applied by FHWA only to projects meeting the following criteria:

1. The proposed project is designed to improve the operational characteristics, safety, and/or physical condition of existing highway facilities on essentially the same alignment. This includes "4R" work (resurfacing, restoration, rehabilitation, and reconstruction); safety improvements, such as shoulder widening and the correction of substandard curves and intersections; traffic operation improvements, such as signalization, channelization, and turning or climbing lanes; bicycle and pedestrian facilities; bridge replacements on essentially the same alignment; and the construction of additional lanes. This programmatic Section 4(f) evaluation does not apply to the construction of a highway on a new location.

2. The Section 4(f) lands are publicly owned public parks, recreatio lands, or wildlife and waterfowl refuges located adjacent to the existing highway.

3. The amount and location of the land to be used shall not impair the use of the remaining Section 4(f) land, in whole or in part, for its intended purpose. This determination is to be made by the FHWA in concurrence with the officials having jurisdiction over the Section 4(f) lands, and will be documented in relation to the size, use, and/or other characteristics deemed relevant.

The total amount of land to be acquired from any Section 4(f) site shall not exceed the values in the following Table:

Total Size of Section 4(f) Site	Maximum to Be Acquired
< 10 acres	10 percent of site
10 acres - 100 acres	1 acre
> 100 acres	1 percent of site

4. The proximity impacts of the project on the remaining Section 4(f) land shall not impair the use of such land for its intended purpose. This determination is to be made by the FHWA in concurrence with the officials having jurisdiction over the Section 4(f) lands, and will be documented with regard to noise, air and water pollution, wildlife and habitat effects, aesthetic values, and/or other impacts deemed relevant.

5. The officials having jurisdiction over the Section 4(f) lands must agree, in writing, with the assessment of the impacts of the proposed project on, and the proposed mitigation for, the Section 4(f) lands.

6. For projects using land from a site purchased or improved with funds under the Land and Water Conservation Fund Act, the Federal Aid in Fish Restoration Act (Dingell-Johnson Act), the Federal Aid in Wildlife Act (Pittman-Robertson Act), or similar laws, or the lands are otherwise encumbered with a Federal interest (e.g., former Federal surplus property), coordination with the appropriate Federal agency is required to ascertain the agency's position on the land conversion or transfer. The programmatic Section 4(f) evaluation does not apply if the agency objects to the land conversion or transfer.

7. This programmatic evaluation does not apply to projects for which an environmental impact statement (EIS) is prepared, unless the use of Section 4(f) lands is discovered after the approval of the final EIS. Should any of the above criteria not be met, this programmatic Section 4(f) evaluation cannot be used, and an individual Section 4(f) evaluation must be prepared.

Alternatives

The following alternatives avoid any use of the public park land, recreational area, or wildlife and waterfowl refuge:

1. Do nothing.
2. Improve the highway without using the adjacent public park, recreational land, or wildlife and waterfowl refuge.
3. Build an improved facility on new location without using the public park, recreation land, or wildlife or waterfowl refuge.

This list is intended to be all-inclusive. The programmatic Section 4(f) evaluation does not apply if a feasible and prudent alternative is identified that is not discussed in this document. The project record must clearly demonstrate that each of the above alternatives was fully evaluated before the FHWA Division Administrator concluded that the programmatic Section 4(f) evaluation applied to the project.

Findings

In order for this programmatic Section 4(f) evaluation to be applied to a project, each of the following findings must be supported by the circumstances, studies, and consultations on the project:

1. Do Nothing Alternative. The Do Nothing Alternative is not feasible and prudent because: (a) it would not correct existing or projected capacity deficiencies; or (b) it would not correct existing safety hazards; or (c) it would not correct existing deteriorated conditions and maintenance problems; and (d) not providing such correction would constitute a cost or community impact of

extraordinary magnitude, or would result in truly unusual or unique problems, when compared with the proposed use of the Section 4(f) lands.

2. Improvement without Using the Adjacent Section 4(f) Lands. It is not feasible and prudent to avoid Section 4(f) lands by roadway design or transportation system management techniques (including, but not limited to, minor alignment shifts, changes in geometric design standards, use of retaining walls and/or other structures, and traffic diversions or other traffic management measures) because implementing such measures would result in: (a) substantial adverse community impacts to adjacent homes, businesses or other improved properties; or (b) substantially increased roadway or structure cost; or (c) unique engineering, traffic, maintenance, or safety problems; or (d) substantial adverse social, economic, or environmental impacts; or (e) the project not meeting identified transportation needs; and (f) the impacts, costs, or problems would be truly unusual or unique, or of extraordinary magnitude when compared with the proposed use of Section 4(f) lands. Flexibility in the application of American Association of State Highway and Transportation Officials (AASHTO) geometric standards should be exercised, as permitted in 23 CFR 625, during the analysis of this alternative.

3. Alternatives on New Location

It is not feasible and prudent to avoid Section 4(f) lands by constructing on new alignment because (a) the new location would not solve existing transportation, safety, or maintenance problems; or (b) the new location would result in substantial adverse social, economic, or environmental impacts (including such impacts as extensive severing of productive farmlands, displacement of a substantial number of families or businesses, serious disruption of established travel patterns, substantial damage to wetlands or other sensitive natural areas, or greater impacts to other Section 4(f) lands); or (c) the new location would substantially increase costs or engineering difficulties (such as an inability to achieve minimum design standards, or to meet the requirements of various permitting agencies such as those involved with navigation, pollution, and the environment); and (d) such problems, impacts, costs, or difficulties would be truly unusual or unique, or of extraordinary magnitude when compared with the proposed use of Section 4(f) lands. Flexibility in the application of AASHTO geometric standards should be exercised, as permitted in 23 CFR 625, during the analysis of this alternative.

Measures to Minimize Harm

This programmatic Section 4(f) evaluation and approval may be used only for projects where the FHWA Division Administrator, in accordance with this evaluation, ensures that the proposed action includes all possible planning to minimize harm. This has occurred when the officials having jurisdiction over the Section 4(f) property have agreed, in writing, with the assessment of impacts resulting from the use of the Section 4(f) property and with the mitigation measures to be provided. Mitigation measures shall include one or more of the following:

1. Replacement of lands used with lands of reasonably equivalent usefulness and location and of at least comparable value.
2. Replacement of facilities impacted by the project including sidewalks, paths, benches, lights, trees, and other facilities.

3. Restoration and landscaping of disturbed areas.
4. Incorporation of design features (e.g., reduction in right-of-way width, modifications to the roadway section, retaining walls, curb and gutter sections, and minor alignment shifts); and habitat features (e.g., construction of new, or enhancement of existing, wetlands or other special habitat types); where necessary to reduce or minimize impacts to the Section 4(f) property. Such features should be designed in a manner that will not adversely affect the safety of the highway facility. Flexibility in the application of AASHTO geometric standards should be exercised, as permitted in 23 CFR 625, during such design.
5. Payment of the fair market value of the land and improvements taken or improvements to the remaining Section 4(f) site equal to the fair market value of the land and improvements taken.
6. Such additional or alternative mitigation measures as may be determined necessary based on consultation with the officials having jurisdiction over the parkland, recreation area, or wildlife or waterfowl refuge.

If the project uses Section 4(f) lands that are encumbered with a Federal interest (see Applicability), coordination is required with the appropriate agency to ascertain what special measures to minimize harm, or other requirements, may be necessary under that agency's regulations. To the extent possible, commitments to accomplish such special measures and/or requirements shall be included in the project record.

Coordination

Each project will require coordination in the early stages of project development with the Federal, State and/or local agency officials having jurisdiction over the Section 4(f) lands. In the case of non-Federal Section 4(f) lands, the official with jurisdiction will be asked to identify any Federal encumbrances. Where such encumbrances exist, coordination will be required with the Federal agency responsible for the encumbrance.

For the interests of the Department of Interior, Federal agency coordination will be initiated with the Regional Directors of the U.S. Fish and Wildlife Service, the National Park Service, and the Bureau of Reclamation; the State Directors of the Bureau of Land Management; and the Area Directors of the Bureau of Indian Affairs. In the case of Indian lands, there will also be coordination with appropriate Indian Tribal officials.

Before applying this programmatic evaluation to projects requiring an individual bridge permit, the Division Administrator shall coordinate with the U.S. Coast Guard District Commander.

Copies of the final written analysis and determinations required under this programmatic Section 4(f) evaluation shall be provided to the officials having jurisdiction over the involved Section 4(f) area and to other parties upon request.

Approval Procedure:

This programmatic Section 4(f) approval applies only after the FHWA Division Administrator has:

1. Determined that the project meets the applicability criteria set forth above;

2. Determined that all of the alternatives set forth in the Findings section have been fully evaluated;

3. Determined that the findings in this document (which conclude that there are no feasible and prudent alternatives to the use of the publicly owned public park, recreation area, or wildlife or waterfowl refuge) are clearly applicable to the project;

4. Determined that the project complies with the Measures to Minimize Harm section of this document;

5. Determined that the coordination called for in this programmatic evaluation has been successfully completed;

6. Assured that the measures to minimize harm will be incorporated in the project; and

7. Documented the project file clearly identifying the basis for the above determinations and assurances.

Issued on: 12/23/'86 Approved: Ali Sevin

Ali F. Sevin, Director
Office of Environmental Policy
Federal Highway Administration

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MONTANA DIVISION

"NATIONWIDE" *SECTION 4(f)* EVALUATION FOR MINOR IMPACTS ON HISTORIC SITES

EXCLUDING HISTORIC BRIDGE REPLACEMENTS

Project #STPU 5807(7) (P.M.S. C# 2319) Date: June 3, 1996
Project Name: North Main Street Location: Helena, Montana

NOTE: Any response in a box requires additional information. Consult the "Nationwide" Section 4(f) Evaluation criteria.

	YES	NO
1. Is the *4(f)* site adjacent to the existing highway?	X	☐
2. Does the proposed project require the removal or alteration of historic structures, and/or objects?	☐	X
3. Does the proposed project disturb or remove archaeological resources which are important to preserve in-place rather than to recover?	☐	X
4. Is the impact on the *4(f)* site considered minor (i.e.: no effect; or no adverse effect)?	X	☐
5. Has the STATE HISTORIC PRESERVATION OFFICE (SHPO) agreed in writing with the assessment of impacts, and the proposed mitigation?	X	☐
6. Is the proposed action under an Environmental Impact Statement (E.I.S.)?	☐	X
7. Is the proposed project on a new location?	☐	X
8. The Scope-of-Work for the proposed project is one of the following:	X	☐

a) Improved traffic operation;
b) Safety improvements;
c) 3R;
d) Bridge replacement on essentially the same alignment; or
e) Addition of lanes.

ALTERNATIVES CONSIDERED

	YES	NO
1. The "do-nothing" **ALTERNATIVE** has been evaluated, and is not considered to be feasible and prudent.	X	☐

***NOTE**: Any response in a box requires additional information.*
Consult the "Nationwide" Section 4(f) Evaluation criteria.

ALTERNATIVES CONSIDERED (conclusion:)

	YES	NO
2. An **ALTERNATIVE** has been evaluated on the existing alignment which improves the highway without any *4(f)* impacts, and is also not considered to be feasible and prudent. Both a two-lane (median) and three-lane turn-lane) design were considered. Neither meet project purpose and need.	**X**	[_]
3. An **ALTERNATIVE** on a new location avoiding the *4(f)* site has been evaluated, and is not considered to be feasible and prudent. The location of the Preferred Alternative was established by the previously existing transportation corridor. The existing corridor is preferable because it is the only grade-separated railroad crossing within the general area. Other locations do not have this grade separated characteristic.	**X**	[_]

MINIMIZATION OF HARM

	YES	NO
1. The proposed project includes all possible planning to minimize harm.	**X**	[_]

2. Measures to minimize harm include the following:

- Replanting of trees at a 1:1 diameter per inch basis
- Replacement of existing sidewalk with new sidewalk
- Revegetating areas that are disturbed during construction

COORDINATION

1. The proposed project has been **COORDINATED** with the following:

	YES	NO
a) SHPO (November, 1995)	**X**	[_]
b) ADVISORY COUNCIL ON HISTORIC PRESERVATION (January, 1996)	**X**	[_]
c) Property owner (January, 1996)	**X**	[_]

2. All of the preceding had the following comment(s) regarding this proposed project, and/or the mitigation:

- The SHPO determined that the project would result in no adverse effect, and did not identify mitigation measures.
- The ACHP concurred with the SHPO's determination.
- The property owner's representative was in basic agreement with the proposed changes to the National Guard Armory property, based on certain mitigation measures being implemented.

SUMMARY

All required **ALTERNATIVES** have been evaluated and the proposed project meets all the criteria included in the "Nationwide Programmatic" *Section 4(f)* evaluation approved on December 23, 1986. This Programmatic Evaluation includes all possible planning to minimize harm which will be incorporated in this proposed project.

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MONTANA DIVISION
"NATIONWIDE" *SECTION 4(f)* EVALUATION
FOR MINOR USAGE OF
PUBLIC PARKS, RECREATION LANDS, AND WILDLIFE AND WATERFOWL REFUGES

Project # STPU 5807(7), (P.M.S. C# 2319) Date: June 3, 1996

Project Name: North Main Street Location: Helena, Montana

NOTE: *Any response in a box requires additional information. Consult the "Nationwide" Section 4(f) Evaluation criteria.*

	YES	NO
1. Is the *4(f)* site adjacent to the existing highway?	X	☐
2. Does the amount and location of the proposed impact area impair the use of the remaining *Section 4(f)* land for its intended purpose?	☐	X
3. Does the proposed project require more than a minor amount* of the *Section 4(f)* site for Right-of-Way?	☐	X
4. Are there any proximity impacts which would impair the use of the *4(f)* lands for their intended purpose (defined as "constructive use")?	☐	X
5. Have the officials with jurisdiction over the property agreed in writing with the assessment of impacts and the proposed mitigation?	X	☐
6. Have Federal funds — such as the *National Land & Water Conservation Fund - Section 6(f)* — been used for the acquisition of, or improvements to the *4(f)* site?	☐	X
If yes — has the land conversion/transfer been coordinated with the appropriate Federal agency,	☐	☐
and are they in agreement?	☐	☐
7. Is the proposed action under an Environmental Impact Statement (E.I.S.)?	☐	X
8. Is the proposed project on a new location?	☐	X
9. The Scope-of-Work for the proposed project is one of the following: a) Improved traffic operation; b) Safety improvements; c) 3R; d) Bridge replacement on essentially the same alignment; or e) Addition of lanes.	X	☐

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*NOTE: MDT's guidelines for "minor amounts" of Right-of-Way (including Construction Permits) are limited to either 10% of a parcel under 10 hectares (25 acres), or 1% of a parcel equal to or greater than 10 hectares (25 acres) in size.

NOTE: *Any response in a box requires additional information. Consult the "NATIONWIDE" SECTION 4(F) EVALUATION criteria.*

ALTERNATIVES CONSIDERED

	YES	**NO**
1. The "do-nothing" **ALTERNATIVE** has been evaluated, and is not considered to be feasible and prudent.	X	☐
2. An **ALTERNATIVE** has been evaluated which improves the highway without any *4(f)* impacts, and is also not considered to be feasible and prudent. Both a two-lane(median) and three-lane (turn-lane) design have been considered. Neither meet project purpose and need.	X	☐
3. An **ALTERNATIVE** on a new location avoiding the *4(f)* site has been evaluated, and is not considered to be feasible and prudent. The location of the Preferred Alternative was established by the previously existing transportation corridor. This existing corridor is preferable because it has the only grade-separated railroad crossing within the general area. Other locations do not have this grade-separated characteristic.	X	☐

MINIMIZATION OF HARM

	YES	**NO**
1. The proposed project includes all possible planning to minimize harm.	X	☐

2. Measures to minimize harm include the following:

   a) Replacement of facilities impacted including sidewalks, paths, benches, lights, trees, and other facilities.

   b Restoration/landscaping of disturbed areas.

COORDINATION

	YES	**NO**
1. The proposed project has been coordinated with the Federal, state, and/or local officials having jurisdiction over the *4(f)* lands. List: • City of Helena Parks Department (January, 1996) • Montana Department of Fish, Wildlife and Parks (October, 1995)	X	☐
2) In the case of non-federal *4(f)* lands, the official with jurisdiction has been asked to identify any Federal encumbrances — and none exist.	X	☐
3) Coordination with the U.S. ARMY - Corps of Engineers has been completed, or a *Section 404* Permit (if applicable) is pending.	X	☐

Appendix C

Biological Memorandum and Wetland Finding

North Main Street
Biological Memorandum

Introduction

Determinations related to potential wildlife, fisheries, wetlands, and associated biological resources within the immediate study corridor were based upon a combination of:

- Aerial photography interpretation using 1" = 100' photos of the corridor;
- Site reconnaissance;
- Reference to the 1981 North Last Chance Gulch EIS; and
- Contact with the following agencies:
  - United States Fish and Wildlife Service (Montana Field Office)
  - Montana Department of Fish, Wildlife and Parks
  - Montana Natural Heritage Program (Natural Resource Information System)
  - City of Helena

Considering the limited habitat areas and their location within an urban setting along a highly trafficked area, there appears to be no potential for significant construction-related impacts to the remaining biological resources. Consequently, this Memorandum has been prepared in lieu of the full Biological Resources Report.

A separate Wetland Finding is also provided. There are no wetland impacts associated with the proposed action.

Area and Project Description

The project area is located in Helena, Montana, entirely within Lewis and Clark County and the City of Helena. The area of analysis is the North Main Street corridor located directly North of the core downtown area. The project area includes the intersection with Montana Avenue at the north end of the North Main Street corridor and the intersection with Lyndale Avenue at the south end.

The project area is characterized as a developed urban corridor with vegetated areas limited to two municipal park properties (Centennial/Bausch and Memorial/Legion) located adjacent to North Main Street at the south end of the project area. On-site vegetation consists of mixed stands of deciduous and coniferous trees within grass-covered areas that are mowed and irrigated. Tree canopy is sparse and variable, and generally less than twenty meters (60 plus feet) in height.

No live rivers, creeks, streams or wetlands are present in the project vicinity, negating the possibilities of a fishery or substantial herptile involvement.

Analysis

Threatened and Endangered Species. Correspondence with the U.S. Fish and Wildlife Service (USFWS) indicates that there will be no project related impacts to threatened or endangered species due to the urban location and relatively limited area of physical impacts associated with the project.

Mitigation/Coordination Measures. No mitigation measures are required for threatened or endangered species.

Determination of Effects. Based on the information provided above, it is determined that implementation of the proposed action is **not likely to adversely affect** any threatened or endangered species.

Additional Biological Resources

According to the Montana Natural Heritage Program, there is no available information indicating the presence of species of special concern in the project area vicinity.

Wildlife use of the immediate area is likely dominated by a variety of sparrows, warblers, corvids, and gulls. Small mammals, including Columbian ground squirrels, pine squirrels, and a variety of mice and possibly pocket gophers occur in the project area. Amphibians and reptiles may occur in the project area, but no information is available to confirm their presence.

Mitigation Measures. All powerline relocations shall be constructed and raptor-proofed in accordance with Raptor Research Report No. 4 (Raptor Research Foundation, 1981).

References

Montana Department of Fish, Wildlife and Parks. 1994. Letter of correspondence from Wildlife Biologist.

Montana Natural Heritage Program. 1994. Letter of correspondence from Information Manager confirming data base search for species of special concern in project area vicinity.

U.S. Fish and Wildlife Service. 1994. Letter of correspondence from Field Supervisor.

Hydrology. No wetland hydrology was observed within the study corridor. No streams, perennial or ephemeral, or any other surface water features were identified.

Conclusion

No wetlands or wetland impacts are identified for this project.

References

Alt, David and Donald W. Hyndman. 1986. Roadside Geology of Montana. Mountain Press Publishing Company, Missoula, Montana.

Dorn, Robert D. 1984. Vascular Plants of Montana. Mountain West Publishing, Cheyenne, Wyoming.

Hanson, Paul L. et al. 1995. Classification and Management of Montana's Riparian and Wetland Sites. Montana Forest and Conservation Experiment Station School of Forestry, The University of Montana. Miscellaneous Publication No. 54.

Lackshewitz, Klaus. 1991 Vascular Plants of West Central Montana - Identification Guidebook. USDA Forest Service. Intermountain Research Station General Technical Report INT-277.

Reed, P. B. 1988. National List of Plant Species that Occur in Wetlands: Northwest (Region 9). U.S. Fish and Wildlife Service. Washington, D.C.

U.S. Army Corps of Engineers. 1987 COE Wetlands Delineation Manual. Wetlands Research Program Technical Report Y-87-1. Department of the Army. Waterways Experiment Station, Corps of Engineers. Vicksburg, Mississippi.